

**Commonwealth of Kentucky  
Natural Resources and Environmental Protection Cabinet  
Department for Environmental Protection  
Division for Air Quality  
803 Schenkel Lane  
Frankfort, Kentucky 40601  
(502) 573-3382**

**Title V  
AIR QUALITY PERMIT  
Issued under 401 KAR 52:020**

**Permittee Name:** Quebecor World Atglen, Inc.  
**Mailing Address:** PO Box 569, Franklin, Kentucky 42135

**Source Name:** Quebecor World Franklin  
**Mailing Address:** 300 Brown Road  
Franklin, Kentucky 42135

**Source Location:** 300 Brown Road, Franklin, Kentucky  
**UTM:** 4066.4N, 538.5E

**Permit Number:** V-02-017 (Revision 1)  
**Log Number:** F444  
**Review Type:** PSD and Synthetic Minor  
**Source ID #:** 21-213-00022  
**SIC Code:** 2754

**Regional Office:** Bowling Green Regional Office  
1508 Westen Avenue  
Bowling Green, KY 42104

**County:** Simpson

**Application**  
**Complete Date:** February 16, 1998  
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**John S. Lyons, Director  
Division for Air Quality**

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## SYMBOLS UTILIZED IN THE PERMIT

|          |   |  |
|----------|---|--|
| $C_{p1}$ | = | VOC consumed during printing on press 1                          |
| $C_{c1}$ | = | VOC consumed during cleaning in the area around press 1          |
| $C_w$    | = | VOC consumed during parts washing activities                     |
| $C_h$    | = | VOC consumed during hand cylinder correction activities          |
| $C_y$    | = | VOC consumed during cylinder cleaning activities                 |
| $C_{p2}$ | = | VOC consumed during printing on press 2                          |
| $C_{c2}$ | = | VOC consumed during cleaning in the area around press 2          |
| $C_{p3}$ | = | VOC consumed during printing on press 3                          |
| $C_{c3}$ | = | VOC consumed during cleaning in the area around press 3          |
| $C_{p4}$ | = | VOC consumed during printing on press 4                          |
| $C_{c4}$ | = | VOC consumed during cleaning in the area around press 4          |
| $C_{p5}$ | = | VOC consumed during printing on press 5                          |
| $C_{c5}$ | = | VOC consumed during cleaning in the area around press 5          |
| $C_{p6}$ | = | VOC consumed during printing on press 6                          |
| $C_{c6}$ | = | VOC consumed during cleaning in the area around press 6          |
| $C_{pp}$ | = | VOC consumed during printing on the proof press                  |
| $C_{cp}$ | = | VOC consumed during cleaning in the area around the proof press  |
| $C_{dp}$ | = | VOC consumed during printing on the drum proofer                 |
| $C_{cd}$ | = | VOC consumed during cleaning in the area around the drum proofer |
| $R$      | = | VOC recovered by the carbon adsorption system                    |

### Subscripts

|             |   |   |
|-------------|---|---|
| $_{post6}$  | = | in the reference month following initial startup of press 6 |
| $_{prior6}$ | = | in the reference month prior to initial startup of press 6  |

## **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction/operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

**EP01**            **Boiler #1**  
**EP05**            **Boiler #2**

**Description:** Boiler #1 is a Keeler model DS22.5 indirect heat exchanger with a maximum continuous rating of 28.6 MM Btu/hour.  
Boiler #2 is a Kewanee model H35-750-602 indirect heat exchanger with a maximum continuous rating of 31.4 MM Btu/hour.  
Each boiler utilizes natural gas as the main fuel and #2 fuel oil as a standby fuel.  
Boiler #1 construction commenced:     September 1978.  
Boiler #2 construction commenced:     December 1984.

### **APPLICABLE REGULATIONS:**

401 KAR 59:015, New indirect heat exchangers, applies to new affected facilities less than 250 MM Btu/hr commenced on or after April 9, 1972.

### **Operating Limitations:**

To demonstrate continuous compliance with Emission Limitations #1 - #3, the following shall apply.

1. Only natural gas or #2 fuel oil shall be burned.
  2. #2 fuel oil burned shall contain no more than 0.5% sulfur (by weight).
  3. Proper operation and maintenance shall be practiced.
- The following shall apply to preclude requirements of PSD.
4. See Section D Synthetic Minor Boiler Limits.

### **Emission Limitations:**

The following limitations result from applicability of 401 KAR 59:015. The limitations may be changed only if the permittee petitions the Cabinet for alternative emission limitations in accordance with Section 3(3) of 401 KAR 59:015.

1. Section 4(1)(c) limits particulate matter emissions from each of the above-identified boilers to no more than 0.291 lbs/MM Btu actual heat input.
2. Section 4(2) limits visible emissions to a maximum of 20% opacity except for emissions occurring during cleaning of the firebox, blowing of soot, and building of a new fire.
  - a. While cleaning of the firebox or blowing of soot is being done, visible emissions are limited to a maximum of 40% opacity for not more than 6 consecutive minutes in any 60 consecutive minutes.
  - b. There is no limit to visible emissions opacity while building a new fire provided a manufacturer recommended method is used and the manufacturer recommended time frame for bringing the boiler up to operating conditions is not exceeded.
3. Section 5(1)(c) limits sulfur dioxide emissions from each of the above-identified boilers to no more than 0.960 lbs/MM Btu actual heat input.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Limitations (Continued):****Compliance Demonstration Method:**

Some testing may be required to demonstrate compliance (see the below testing requirements for details). If deemed necessary, the Cabinet shall require additional testing in accordance with 40 CFR 60 Appendix A, Methods 5, 9, and 6, respectively. Otherwise, if operated in accordance with Operating Limitations #1 - #3, compliance is assumed.

The following shall apply to preclude requirements of PSD.

4. See Section D Synthetic Minor Boiler Limits.

**Testing Requirements:**

In addition to testing conducted at such times required by the Cabinet in accordance with Regulations 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 4, Compliance Demonstration for Emission Limitation #2 shall require the following.

1. If #2 fuel oil is utilized in a boiler during any calendar year (beyond test firing), a 40 CFR 60 Appendix A, Method 9 opacity test shall be performed on the stack emissions of the boiler during the year while #2 fuel oil is being burned.

**Specific Monitoring Requirements:**

N/A

**Specific Record Keeping Requirements:**

To demonstrate compliance with Operating Limitation #1,

1. A record of the type of fuels burned shall be maintained.

To demonstrate compliance with Operating Limitation #2,

2. A record of manufacturer certified #2 fuel oil sulfur content (by weight) shall be maintained.

To demonstrate compliance with Operating Limitation #3,

3. A copy of the manufacturer's operating and maintenance specifications shall be maintained and made available to appropriate division personnel.
4. Any operation or maintenance that is less stringent than the manufacturer's minimum recommendation shall be recorded.
5. Dates and descriptions of maintenance performed as part of compliance with Operating Limitation #3 shall be recorded.

As part of compliance demonstration for Emission Limitation #2,

6. Maintain a record of all performance test data.

The following shall apply to verify limits taken to preclude requirements of PSD.

7. See Section D Synthetic Minor Boiler Limits.

**Specific Reporting Requirements:**

1. As part of compliance demonstration for Emission Limitation #2, report data from any tests performed to the Bowling Green Regional Office within 45 days of completion of the fieldwork.
2. See Section D Synthetic Minor Boiler Limits.

**Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**EP23            Boiler #3**

**EP22            Boiler #4**

**Description:** Boiler #3 is a Cleaver Brooks 800 HP indirect heat exchanger with a maximum continuous rating of 33.5 MM Btu/hour.

Boiler #4 is a Cleaver Brooks indirect heat exchanger with a maximum continuous rating of 33.5 MM Btu/hour.

Each boiler utilizes natural gas as the main fuel and #2 fuel oil as a standby fuel.

Boiler #3 construction commenced: May 1991.

Boiler #4 construction commenced: projected for mid to late 2002.

### **APPLICABLE REGULATIONS:**

401 KAR 59:015, New indirect heat exchangers, applies to new affected facilities less than 250 MM Btu/hr commenced on or after April 9, 1972.

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR 60 Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating units. 40 CFR 60 Subpart Dc applies to each new steam-generating unit that commenced construction after June 9, 1989.

### **Operating Limitations :**

To demonstrate continuous compliance with Emission Limitations #1 - #3, the following shall apply. Operating Limitation #2 also applies as a result of 40 CFR 60.42c(d) applicability.

1. Only natural gas or #2 fuel oil shall be burned.
2. #2 fuel oil burned shall contain no more than 0.5% sulfur (by weight).
3. Proper operation and maintenance shall be practiced.

The following shall apply to preclude requirements of PSD.

4. See Section D Synthetic Minor Boiler Limits.

### **Emission Limitations :**

The following limitations result from applicability of 401 KAR 59:015. The particulate and sulfur limitations may be changed only if the permittee petitions the Cabinet for alternative emission limitations in accordance with Section 3(3) of 401 KAR 59:015. Since Emission Limitation #2 is more stringent than the applicable requirement of 40 CFR 60.43c(c), a combined limitation for demonstrating compliance with 401 KAR 59:015 and 40 CFR 60 Subpart Dc is described in Emission Limitation #2.

1. Section 4(1)(c) limits particulate matter emissions from each of the above-identified boilers to no more than 0.308 lbs/MM Btu actual heat input.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Limitations (Continued):**

2. Section 4(2) limits visible emissions to a maximum of 20% opacity except for emissions occurring during cleaning of the firebox, blowing of soot, and building of a new fire.
  - a. While cleaning of the firebox or blowing of soot is being done, visible emissions are limited to a maximum of 40% opacity for not more than 6 consecutive minutes in any 60 consecutive minutes.
  - b. There is no limit to visible emissions opacity while building a new fire provided a manufacturer recommended method is used and the manufacturer recommended time frame for bringing the boiler up to operating conditions is not exceeded.
3. Section 5(1)(c) limits sulfur dioxide emissions from each of the above-identified boilers to no more than 1.057 lbs/MM Btu actual heat input.

**Compliance Demonstration Method:**

Some testing may be required to demonstrate compliance (see the below testing requirements for details). If deemed necessary, the Cabinet shall require additional testing in accordance with 40 CFR 60 Appendix A, Methods 5, 9, and 6, respectively. Otherwise, if operated in accordance with Operating Limitations #1 - #3, compliance is assumed.

The following shall apply to preclude requirements of PSD.

4. See Section D Synthetic Minor Boiler Limits.

**Testing Requirements:**

In addition to testing conducted at such times required by the Cabinet in accordance with Regulations 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 4, Compliance Demonstration for Emission Limitation #2 shall require the following.

1. If #2 fuel oil is utilized in a boiler during any calendar year (beyond test firing), a 40 CFR 60 Appendix A, Method 9 opacity test shall be performed on the stack emissions of the boiler during the year while #2 fuel oil is being burned.

**Specific Monitoring Requirements:**

N/A

**Specific Record Keeping Requirements:**

To demonstrate compliance with Operating Limitation #1,

1. A record of the type of fuels burned shall be maintained.

To demonstrate compliance with Operating Limitation #2,

2. A record of manufacturer certified #2 fuel oil sulfur content (by weight) shall be maintained. Additionally, in accordance with 40 CFR 60.48c(f)(1), the name of the #2 fuel oil supplier shall be recorded and the fuel oil supplier shall provide the permittee with a statement certifying that the fuel oil complies with the ASTM definition of #2 fuel oil.

To demonstrate compliance with Operating Limitation #3,

3. A copy of the manufacturer's operating and maintenance specifications shall be maintained and made available to appropriate division personnel.
4. Any operation or maintenance that is less stringent than the manufacturer's minimum recommendation shall be recorded.



## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Specific Record Keeping Requirements (Continued):**

5. Dates and descriptions of maintenance performed as part of compliance with Operating Limitation #3 shall be recorded.

As part of compliance demonstration for Emission Limitation #2,

6. Record periods of startup, shutdown, or malfunction. Cleaning of the firebox and blowing of soot shall be considered part of shutdown.

To demonstrate compliance with applicable record keeping described in 40 CFR 60 Subpart Dc,

7. Maintain a record of all performance test data.

8. Record the amount of each fuel combusted each day in accordance with 40 CFR 60.48c(g).

The following shall apply as part of 40 CFR 60.48c(h) requirements and to verify limits taken to preclude requirements of PSD.

9. See Section D Synthetic Minor Boiler Limits.

### **Specific Reporting Requirements:**

To demonstrate compliance with applicable reporting described in 40 CFR 60 Subpart Dc, submit the following to the Bowling Green Regional Office.

1. Submit any data obtained during testing within 45 days of completion of the fieldwork in accordance with 40 CFR 60.48c(b).
2. Submit quarterly reports in accordance with 40 CFR 60.48c(d) and (e)(11) that identify all fuels combusted during the period and verify that supplier certifications are representative of the #2 fuel oil combusted.

The following shall apply as part of 40 CFR 60.48c(h) requirements and to verify limits taken to preclude requirements of PSD.

3. See Section D Synthetic Minor Boiler Limits.

### **Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP02            Press 1**

**Description:** Albert Frankenthal model TR5S publication rotogravure printing press - 72" wide with 10 printing units and one in-line flexographic imprinter.

The press is controlled by a carbon adsorption system and is not within a permanent total enclosure.

Overall control efficiency is demonstrated through monthly liquid-liquid material balances.

Construction commenced:        July 1978.

### **APPLICABLE REGULATIONS:**

40 CFR 52.21, Prevention of significant deterioration of air quality, is applicable.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

See Group 1 Requirements.

### **Emission Limitations:**

See Group 1 Requirements.

### **Testing Requirements:**

See Group 1 Requirements.

### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(A) and compliance demonstration requirements for Best Available Control Technology (BACT) limitations that result from applicability of 40 CFR 52.21;
  - a. Measure the mass of each raw material (including the flexographic materials) consumed during printing each month at the press, and
  - b. Measure the mass of cleaning solution consumed in the press area each month.

### **Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1) and compliance demonstration requirements for BACT limitations that result from applicability of 40 CFR 52.21;
  - a. Record the mass and VOC content of each raw material (including the flexographic materials) consumed during printing each month at the press, and
  - b. Record the mass and VOC content of each cleaning solution consumed in the press area each month.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Specific Reporting Requirements:**

N/A to this press alone.

**Specific Control Equipment Operating Conditions:**

See Section E of this permit.

**Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP40                  6 Hand Correction Stations**

**Description:** K. Walter/Chem Trend hand cylinder correction stations.

Dates commenced:     4 stations in April 1985 and 2 stations in March 1992.

#### **Operating Limitations:**

See Group 1 Requirements, Group 2 Requirements, Group 3 Requirements, Group 4 Requirements, Group 5 Requirements, and Group 6 Requirements.

#### **Emission Limitations:**

See Group 1 Requirements, Group 2 Requirements, Group 3 Requirements, Group 4 Requirements, Group 5 Requirements, and Group 6 Requirements.

#### **Testing Requirements:**

See Group 1 Requirements, Group 2 Requirements, Group 3 Requirements, Group 4 Requirements, Group 5 Requirements, and Group 6 Requirements.

#### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(A) and compliance demonstration requirements for BACT and Lowest Achievable Emission Rate (LAER) limitations, measure the mass of each raw material consumed during hand cylinder correction activities each month.

#### **Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1) and compliance demonstration requirements for BACT and LAER limitations, record the mass and VOC content of each raw material consumed during hand cylinder correction activities each month.

#### **Specific Reporting Requirements:**

N/A to this press alone.

#### **Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP41            Parts Washer**

**Description:**    Renzmann parts washer controlled by a carbon adsorption system.  
After the wash solvent is used for a period, the solvent is purified and reused with the help of a distillation unit.  
Parts washer construction commenced: 1979.  
Distillation unit construction commenced:            March 1985.

#### **Operating Limitations:**

See Group 1 Requirements, Group 2 Requirements, Group 3 Requirements, Group 4 Requirements, Group 5 Requirements, and Group 6 Requirements.

#### **Emission Limitations:**

See Group 1 Requirements, Group 2 Requirements, Group 3 Requirements, Group 4 Requirements, Group 5 Requirements, and Group 6 Requirements.

#### **Testing Requirements:**

See Group 1 Requirements, Group 2 Requirements, Group 3 Requirements, Group 4 Requirements, Group 5 Requirements, and Group 6 Requirements.

#### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(A), 40 CFR 60.434(a), and compliance demonstration requirements for BACT and LAER limitations, measure the mass of each wash solvent consumed during parts washing activities each month.

#### **Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1), 40 CFR 60.434(a), and compliance demonstration requirements for BACT and LAER limitations, record the mass and VOC content of each wash solvent consumed during parts washing activities each month.

#### **Specific Reporting Requirements:**

N/A to this press alone.

#### **Specific Control Equipment Operating Conditions:**

See Section E of this permit.

#### **Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP51            Cylinder Cleaning in the Plating Area**

**Description:**    Construction commenced:        March 1992.

**Operating Limitations:**

See Group 1 Requirements, Group 2 Requirements, Group 3 Requirements, Group 4 Requirements, Group 5 Requirements, and Group 6 Requirements.

**Emission Limitations:**

See Group 1 Requirements, Group 2 Requirements, Group 3 Requirements, Group 4 Requirements, Group 5 Requirements, and Group 6 Requirements.

**Testing Requirements:**

See Group 1 Requirements, Group 2 Requirements, Group 3 Requirements, Group 4 Requirements, Group 5 Requirements, and Group 6 Requirements.

**Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(A), 40 CFR 60.434(a), and compliance demonstration requirements for BACT and LAER limitations, measure the mass of each cleaning solvent consumed during cylinder cleaning activities each month.

**Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1), 40 CFR 60.434(a), and compliance demonstration requirements for BACT and LAER limitations, record the mass and VOC content of each cleaning solvent consumed during cylinder cleaning activities each month.

**Specific Reporting Requirements:**

N/A to this press alone.

**Alternate Operating Scenarios:**

N/A

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Group 1 Requirements

### Press 1 and Associated Operations

**Description:** Press 1 + hand correction of cylinders used on press 1 + parts washing for press 1 + cylinder cleaning for press 1.

### **APPLICABLE REGULATIONS:**

40 CFR 52.21, Prevention of significant deterioration of air quality, is applicable.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

The following limitations are components of Best Available Control Technology (BACT) and result from applicability of 40 CFR 52.21.

1. Raw material used by this group and operation of control equipment shall be such that VOC emitted, calculated using the compliance demonstration method for Emission Limitation #1, during any 12 consecutive month period is  $\leq 270$  tons (demonstrated monthly).
2. Operation of control equipment shall be such that VOC control efficiency, determined using the compliance demonstration method for Emission Limitation 2, for this group is at least 90%, by weight, each month.
3. See Carbon Adsorption System Operating Limitation #1.

The following limitations are part of compliance demonstration for applicable provisions of 40 CFR 63 Subpart KK.

4. Raw material used by this group and operation of control equipment shall be such that source wide VOC (and organic HAP) control efficiency, calculated using the compliance demonstration method for Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements, for the presses and associated activities is at least 92%, by weight, each month.
5. See Section D Operating Limitations of the Source Wide Press and Adsorber Limits and Requirements.

### **Emission Limitations:**

Limitations #1 and #2 are components of BACT and result from applicability of 40 CFR 52.21.

1. For each 12 consecutive month period, VOC emissions from this group shall not exceed 270 tons as demonstrated on a monthly basis.

### **Compliance Demonstration Method:**

Compliance demonstration is realistically possible only if this group demonstrates compliance with Emission Limitation #2 each month. Assuming compliance with Emission Limitation #2, demonstrate compliance monthly through record keeping data from the appropriate 12 consecutive months and utilization of the following equations.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Emission Limitations (Continued):

#### **Compliance Demonstration Method (Continued):**

VOC emissions from this group =

$$0.10 \times (C_{p1} + C_{c1}) + 0.10 \times \frac{C_{p1}}{C_{p1} + C_{p2} + C_{p3} + C_{p4} + C_{p5} + C_{p6}} \times (C_w + C_h + C_y)$$

Where,

$C_{p1} = S$  (Mass of each raw material, including the flexographic materials, consumed during operation of press 1 x VOC % (by weight) of the raw material)

$C_{c1} = S$  (Mass of each cleaning solution consumed during cleaning in the area of press 1 x VOC % (by weight) of the cleaning solution)

$C_w = S$  (Mass of each wash solvent consumed during parts washing activities x VOC % (by weight) of the wash solvent)

$C_h = S$  (Mass of each raw material consumed during hand cylinder correction activities x VOC % (by weight) of the raw material)

$C_y = S$  (Mass of each cleaning solvent consumed during cylinder cleaning activities x VOC % (by weight) of the cleaning solvent)

$C_{p2}$ ,  $C_{p3}$ ,  $C_{p4}$ ,  $C_{p5}$ , and  $C_{p6}$  are described beyond their definition at the respective other groups. If data yields  $\leq 270$  tons, compliance is demonstrated.

- At least 90%, by weight, of the net VOC used in association with operation of the press during each month shall be recovered during the month.

#### **Compliance Demonstration Method:**

Compliance shall be performed through monthly source wide liquid-liquid material balances. If the required source wide recovery is achieved, then this group is assumed to be in compliance with Emission Limitation #2. See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for details.

- In accordance with 40 CFR 63.824(b), at least 92%, by weight, of the net HAP used in association with operation of all presses at the source during each month shall be recovered during the month.

#### **Compliance Demonstration Method:**

See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for compliance demonstration.



## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Testing Requirements:**

See Section D Testing Requirements of the Source Wide Press and Adsorber Limits and Requirements.

### **Specific Monitoring Requirements:**

1. See Press 1 Specific Monitoring Requirements #1a and #1b.
2. See 6 Hand Correction Stations Specific Monitoring Requirement #1.
3. See Parts Washer Specific Monitoring Requirement #1.
4. See Cylinder Cleaning Specific Monitoring Requirement #1.
5. See Carbon Adsorption System Specific Monitoring Requirement #1.
6. See Specific Monitoring Requirements in the other respective groups.

### **Specific Record Keeping Requirements:**

1. See Press 1 Specific Record Keeping Requirements #1a and #1b.
2. See 6 Hand Correction Stations Specific Record Keeping Requirement #1.
3. See Parts Washer Specific Record Keeping Requirement #1.
4. See Cylinder Cleaning Specific Record Keeping Requirement #1.
5. See Carbon Adsorption System Specific Record Keeping Requirement #1.
6. See Specific Record Keeping Requirements in the other respective groups.
7. See Section D Specific Record Keeping Requirements of the Source Wide Press and Adsorber Limits and Requirements.
8. In accordance with compliance demonstration requirements for BACT limitations, record VOC emissions from this group for each 12 consecutive month period. Calculate the VOC emissions from this group for each 12 consecutive month period using the above equations in the Compliance Demonstration Method for Emission Limitation #1.

### **Specific Reporting Requirements:**

1. See Section D Specific Reporting Requirements of the Source Wide Press and Adsorber Limits and Requirements.
2. In accordance with compliance demonstration requirements for BACT limitations, report semiannually the calculated VOC emissions from this group for each 12 consecutive month period in the semiannual period.

### **Specific Control Equipment Operating Conditions:**

See Section E of this permit.

### **Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP03            Press 2**

**Description:** Albert Frankenthal model TR5S publication rotogravure printing press - 72" wide with 10 printing units.

The press is controlled by a carbon adsorption system and is not within a permanent total enclosure.

Overall control efficiency is demonstrated through monthly liquid-liquid material balances.

Construction commenced:        December 1979.

### **APPLICABLE REGULATIONS:**

401 KAR 51:015, Prevention of significant deterioration of air quality, was applicable at the time of construction authorization for this press and continues to impose limitations and requirements.

401 KAR 51:050, Stationary sources; constructing in or impacting upon non-attainment areas, was assumed to be applicable at the time of construction authorization for this press and continues to impose limitations and requirements.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

See Group 2 Requirements.

### **Emission Limitations:**

See Group 2 Requirements.

### **Testing Requirements:**

See Group 2 Requirements.

### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(A) and compliance demonstration requirements for LAER limitations;
  - a. Measure the mass of each raw material consumed during printing each month at the press, and
  - b. Measure the mass of cleaning solution consumed in the press area each month.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1) and compliance demonstration requirements for LAER limitations;
  - a. Record the mass and VOC content of each raw material consumed during printing each month at the press, and
  - b. Record the mass and VOC content of each cleaning solution consumed in the press area each month.

**Specific Reporting Requirements:**

N/A to this press alone.

**Specific Control Equipment Operating Conditions:**

See Section E of this permit.

**Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Group 2 Requirements**

### **Press 2 and Associated Operations**

**Description:** Press 2 + hand correction of cylinders used on press 2 + parts washing for press 2 + cylinder cleaning for press 2.

### **APPLICABLE REGULATIONS:**

401 KAR 51:015, Prevention of significant deterioration of air quality, was applicable at the time of construction authorization for this press and continues to impose limitations and requirements.

401 KAR 51:050, Stationary sources; constructing in or impacting upon non-attainment areas, was assumed to be applicable at the time of construction authorization for this press and continues to impose limitations and requirements.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

The following limitations are components of Lowest Achievable Emission Rate (LAER) and result from applicability of 401 KAR 51:015 and 401 KAR 51:050.

1. Raw material used by this group and operation of control equipment shall be such that VOC emitted, calculated using the compliance demonstration method for Emission Limitation #1, during any 12 consecutive month period is  $\leq 304$  tons (demonstrated monthly).
2. Operation of control equipment shall be such that VOC control efficiency, determined using the compliance demonstration method for Emission Limitation 2, for this group is at least 90%, by weight, each month.
3. See Carbon Adsorption System Operating Limitation #1.

The following limitations are part of compliance demonstration for applicable provisions of 40 CFR 63 Subpart KK.

4. Raw material used by this group and operation of control equipment shall be such that source wide VOC (and organic HAP) control efficiency, calculated using the compliance demonstration method for Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements, for the presses and associated activities is at least 92%, by weight, each month.
5. See Section D Operating Limitations of the Source Wide Press and Adsorber Limits and Requirements.

### **Emission Limitations:**

Limitations #1 and #2 are components of LAER.

1. For each 12 consecutive month period, VOC emissions from this group shall not exceed 304 tons as demonstrated on a monthly basis.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Emission Limitations (Continued):

#### **Compliance Demonstration Method:**

Compliance demonstration is realistically possible only if this group demonstrates compliance with Emission Limitation #2 each month. Assuming compliance with Emission Limitation #2, demonstrate compliance monthly through record keeping data from the appropriate 12 consecutive months and utilization of the following equations.

$$\text{VOC emissions from this group} = 0.10 \times (C_{p2} + C_{c2}) + 0.10 \times \frac{C_{p2}}{C_{p1} + C_{p2} + C_{p3} + C_{p4} + C_{p5} + C_{p6}} \times (C_w + C_h + C_y)$$

Where,

$C_{p2} = S$  (Mass of each raw material consumed during operation of press 2  
x VOC % (by weight) of the raw material)

$C_{c2} = S$  (Mass of each cleaning solution consumed during cleaning in the area of press 2  
x VOC % (by weight) of the cleaning solution)

Other symbols are described beyond their definition at the respective other groups. If data yields  $\leq 304$  tons, compliance is demonstrated.

2. At least 90%, by weight, of the net VOC used in association with operation of the press during each month shall be recovered during the month.

#### **Compliance Demonstration Method:**

Compliance shall be performed through monthly source wide liquid-liquid material balances. If the required source wide recovery is achieved, then this group is assumed to be in compliance with Emission Limitation #2. See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for details.

3. In accordance with 40 CFR 63.824(b), at least 92%, by weight, of the net HAP used in association with operation of all presses at the source during each month shall be recovered during the month.

#### **Compliance Demonstration Method:**

See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for compliance demonstration.

### Testing Requirements:

See Section D Testing Requirements of the Source Wide Press and Adsorber Limits and Requirements.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Specific Monitoring Requirements:**

1. See Press 2 Specific Monitoring Requirements #1a and #1b.
2. See 6 Hand Correction Stations Specific Monitoring Requirement #1.
3. See Parts Washer Specific Monitoring Requirement #1.
4. See Cylinder Cleaning Specific Monitoring Requirement #1.
5. See Carbon Adsorption System Specific Monitoring Requirement #1.
6. See Specific Monitoring Requirements in the other respective groups.

### **Specific Record Keeping Requirements:**

1. See Press 2 Specific Record Keeping Requirements #1a and #1b.
2. See 6 Hand Correction Stations Specific Record Keeping Requirement #1.
3. See Parts Washer Specific Record Keeping Requirement #1.
4. See Cylinder Cleaning Specific Record Keeping Requirement #1.
5. See Carbon Adsorption System Specific Record Keeping Requirement #1.
6. See Specific Record Keeping Requirements in the other respective groups.
7. See Section D Specific Record Keeping Requirements of the Source Wide Press and Adsorber Limits and Requirements.
8. In accordance with compliance demonstration requirements for LAER limitations, record VOC emissions from this group for each 12 consecutive month period. Calculate the VOC emissions from this group for each 12 consecutive month period using the above equations in the Compliance Demonstration Method for Emission Limitation #1.

### **Specific Reporting Requirements:**

1. See Section D Specific Reporting Requirements of the Source Wide Press and Adsorber Limits and Requirements.
2. In accordance with compliance demonstration requirements for LAER limitations, report semiannually the calculated VOC emissions from this group for each 12 consecutive month period in the semiannual period.

### **Specific Control Equipment Operating Conditions:**

See Section E of this permit.

### **Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP04            Press 3**

**Description:** Albert Frankenthal model TR6B publication rotogravure printing press - 96" wide with 10 printing units.

The press is controlled by a carbon adsorption system and is not within a permanent total enclosure.

Overall control efficiency is demonstrated through monthly liquid-liquid material balances.

Construction commenced:        1984.

### **APPLICABLE REGULATIONS:**

401 KAR 51:015, Prevention of significant deterioration of air quality, was applicable at the time of construction authorization for this press and continues to impose limitations and requirements.

401 KAR 51:050, Stationary sources; constructing in or impacting upon non-attainment areas, was assumed to be applicable at the time of construction authorization for this press and continues to impose limitations and requirements.

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR 60 Subpart QQ, Standards of performance for the graphic arts industry: publication rotogravure printing.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

See Group 3 Requirements.

### **Emission Limitations:**

See Group 3 Requirements.

### **Testing Requirements:**

See Group 3 Requirements.

### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(A), 40 CFR 60.434(a), and compliance demonstration requirements for LAER limitations;
  - a. Measure the mass of each raw material consumed during printing each month at the press, and
  - b. Measure the mass of cleaning solution consumed in the press area each month.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1), 40 CFR 60.434(a), and compliance demonstration requirements for LAER limitations;
  - a. Record the mass and VOC content of each raw material consumed during printing each month at the press, and
  - b. Record the mass and VOC content of each cleaning solution consumed in the press area each month.

### **Specific Reporting Requirements:**

N/A to this press alone.

### **Specific Control Equipment Operating Conditions:**

See Section E of this permit.

### **Alternate Operating Scenarios:**

N/A



## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Group 3 Requirements

### Press 3 and Associated Operations

**Description:** Press 3 + hand correction of cylinders used on press 3 + parts washing for press 3  
+ cylinder cleaning for press 3

### **APPLICABLE REGULATIONS:**

401 KAR 51:015, Prevention of significant deterioration of air quality, was applicable at the time of construction authorization for this press and continues to impose limitations and requirements.

401 KAR 51:050, Stationary sources; constructing in or impacting upon non-attainment areas, was assumed to be applicable at the time of construction authorization for this press and continues to impose limitations and requirements.

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR 60 Subpart QQ, Standards of performance for the graphic arts industry: publication rotogravure printing.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

The following limitations are components of Lowest Achievable Emission Rate (LAER) and result from applicability of 401 KAR 51:015 and 401 KAR 51:050. Compliance with Operating Limitation #2 will also be part of compliance demonstration for 40 CFR 60.432.

1. Raw material used by this group and operation of control equipment shall be such that VOC emitted, calculated using the compliance demonstration method for Emission Limitation #1, during any 12 consecutive month period is  $\leq$  348 tons (demonstrated monthly).
2. Operation of control equipment shall be such that VOC control efficiency, determined using the compliance demonstration method for Emission Limitation 2, for this group is at least 90%, by weight, each month.
3. See Carbon Adsorption System Operating Limitation #1.

The following limitations are part of compliance demonstration for applicable provisions of 40 CFR 63 Subpart KK.

4. Raw material used by this group and operation of control equipment shall be such that source wide VOC (and organic HAP) control efficiency, calculated using the compliance demonstration method for Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements, for the presses and associated activities is at least 92%, by weight, each month.
5. See Section D Operating Limitations of the Source Wide Press and Adsorber Limits and Requirements.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Emission Limitations:

Limitations #1 and #2 are components of LAER. Compliance with Emission Limitation #2 will also satisfy requirements resulting from applicability of 40 CFR 60.432.

1. For each 12 consecutive month period, VOC emissions from this group shall not exceed 348 tons as demonstrated on a monthly basis.

#### **Compliance Demonstration Method:**

Compliance demonstration is realistically possible only if this group demonstrates compliance with Emission Limitation #2 each month. Assuming compliance with Emission Limitation #2, demonstrate compliance monthly through record keeping data from the appropriate 12 consecutive months and utilization of the following equations.

$$\text{VOC emissions from this group} = 0.10 \times (C_{p3} + C_{c3}) + 0.10 \times \frac{C_{p3}}{C_{p1} + C_{p2} + C_{p3} + C_{p4} + C_{p5} + C_{p6}} \times (C_w + C_h + C_y)$$

Where,

$$C_{p3} = S \text{ (Mass of each raw material consumed during operation of press 3} \\ \times \text{VOC \% (by weight) of the raw material)}$$

$$C_{c3} = S \text{ (Mass of each cleaning solution consumed during cleaning in the area of press 3} \\ \times \text{VOC \% (by weight) of the cleaning solution)}$$

Other symbols are described beyond their definition at the respective other groups. If data yields  $\leq$  348 tons, compliance is demonstrated.

2. At least 90%, by weight, of the net VOC used in association with operation of the press during each month shall be recovered during the month.

#### **Compliance Demonstration Method:**

Compliance shall be performed through monthly source wide liquid-liquid material balances. If the required source wide recovery is achieved, then this group is assumed to be in compliance with Emission Limitation #2. See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for details.

3. In accordance with 40 CFR 63.824(b), at least 92%, by weight, of the net HAP used in association with operation of all presses at the source during each month shall be recovered during the month.

#### **Compliance Demonstration Method:**

See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for compliance demonstration.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Testing Requirements:**

See Section D Testing Requirements of the Source Wide Press and Adsorber Limits and Requirements.

### **Specific Monitoring Requirements:**

1. See Press 3 Specific Monitoring Requirements #1a and #1b.
2. See 6 Hand Correction Stations Specific Monitoring Requirement #1.
3. See Parts Washer Specific Monitoring Requirement #1.
4. See Cylinder Cleaning Specific Monitoring Requirement #1.
5. See Carbon Adsorption System Specific Monitoring Requirement #1.
6. See Specific Monitoring Requirements in the other respective groups.

### **Specific Record Keeping Requirements:**

1. See Press 3 Specific Record Keeping Requirements #1a and #1b.
2. See 6 Hand Correction Stations Specific Record Keeping Requirement #1.
3. See Parts Washer Specific Record Keeping Requirement #1.
4. See Cylinder Cleaning Specific Record Keeping Requirement #1.
5. See Carbon Adsorption System Specific Record Keeping Requirement #1.
6. See Specific Record Keeping Requirements in the other respective groups.
7. See Section D Specific Record Keeping Requirements of the Source Wide Press and Adsorber Limits and Requirements.
8. In accordance with compliance demonstration requirements for LAER limitations, record VOC emissions from this group for each 12 consecutive month period. Calculate the VOC emissions from this group for each 12 consecutive month period using the above equations in the Compliance Demonstration Method for Emission Limitation #1.

### **Specific Reporting Requirements:**

1. See Section D Specific Reporting Requirements of the Source Wide Press and Adsorber Limits and Requirements.
2. In accordance with compliance demonstration requirements for LAER limitations, report semiannually the calculated VOC emissions from this group for each 12 consecutive month period in the semiannual period.

### **Specific Control Equipment Operating Conditions:**

See Section E of this permit.

### **Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP18            Proof Press**

**Description:** Cerutti rotogravure proof press - 96" wide with 4 printing units.  
The press is controlled by a carbon adsorption system and is not within a permanent total enclosure.  
Overall control efficiency is demonstrated through monthly liquid-liquid material balances.  
Construction commenced:        July 1984.

### **APPLICABLE REGULATIONS:**

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

The following limitations are required to make the press synthetic minor and preclude PSD.

1. Operation of control equipment shall be such that VOC control efficiency, determined using the compliance demonstration method for Emission Limitation #2, for this proof press is at least 75%, by weight, each month.
2. See Carbon Adsorption System Operating Limitation #1.

The following limitations are part of compliance demonstration for applicable provisions of 40 CFR 63 Subpart KK.

3. Raw material used by this press and operation of control equipment shall be such that source wide VOC (and organic HAP) control efficiency, calculated using the compliance demonstration method for Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements, for the presses and associated activities is at least 92%, by weight, each month.
4. See Section D Operating Limitations of the Source Wide Press and Adsorber Limits and Requirements.

### **Emission Limitations:**

1. At least 75%, by weight, of the net VOC used for operation of the press during each month shall be recovered during the month to make the press synthetic minor and preclude PSD.

### **Compliance Demonstration Method:**

Compliance shall be performed through monthly source wide liquid-liquid material balances. If the required source wide recovery is achieved, then this press is assumed to be in compliance with Emission Limitation #1. See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for details.

2. In accordance with 40 CFR 63.824(b), at least 92%, by weight, of the net HAP used in association with operation of all presses (including proof presses) at the source during each month shall be recovered during the month.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Emission Limitations (Continued):**

#### **Compliance Demonstration Method:**

See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for compliance demonstration.

### **Testing Requirements:**

See Section D Testing Requirements of the Source Wide Press and Adsorber Limits and Requirements.

### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(A) and compliance demonstration requirements for synthetic minor limitations;
  - a. Measure the mass of each raw material consumed during operation of the press each month, and
  - b. Measure the mass of cleaning solution consumed in the press area each month.
2. See Carbon Adsorption System Specific Monitoring Requirement #1.

### **Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1) and compliance demonstration requirements for synthetic minor limitations;
  - a. Record the mass and VOC content of each raw material consumed during operation of the press each month, and
  - b. Record the mass and VOC content of each cleaning solution consumed in the press area each month.
2. See Carbon Adsorption System Specific Record Keeping Requirement #1.
3. See Section D Specific Record Keeping Requirements of the Source Wide Press and Adsorber Limits and Requirements.

### **Specific Reporting Requirements:**

See Section D Specific Reporting Requirements of the Source Wide Press and Adsorber Limits and Requirements.

### **Specific Control Equipment Operating Conditions:**

See Section E of this permit.

### **Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP06            Press 4**

**Description:** Albert Frankenthal model TR8B publication rotogravure printing press - 125" wide with 8 printing units with one in-line flexographic imprinter.

The press is controlled by a carbon adsorption system and is within a permanent total enclosure.

Overall control efficiency is demonstrated through monthly liquid-liquid material balances.

Construction commenced:        May 1991.

Modified:                                March 1996.

### **APPLICABLE REGULATIONS:**

401 KAR 51:017, Prevention of significant deterioration of air quality, is applicable since the press went through a PSD modification in 1996. Due to the modification, requirements of 401 KAR 51:015 and 401 KAR 51:050 were replaced by superior requirements.

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR 60 Subpart QQ, Standards of performance for the graphic arts industry: publication rotogravure printing.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

1. As part of BACT applicability resulting from applicability of 401 KAR 51:017, the press shall be operated within a structure that is demonstrated to be a permanent total enclosure as described in Method 204 of 40 CFR 51 Appendix M.
2. See Group 4 Requirements for additional operating limitations.

### **Emission Limitations:**

See Group 4 Requirements.

### **Testing Requirements:**

1. To demonstrate compliance with Operating Limitation #1, testing described in Method 204 of 40 CFR 51 Appendix M shall be performed by December 21, 2002 to demonstrate that the press is within a permanent total enclosure.
2. See Group 4 Requirements for additional testing requirements.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(A), 40 CFR 60.434(a), and compliance demonstration requirements for BACT limitations;
  - a. Measure the mass of each raw material (including the flexographic materials) consumed during printing each month at the press, and
  - b. Measure the mass of cleaning solution consumed in the press area each month.

### **Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1), 40 CFR 60.434(a), and compliance demonstration requirements for BACT limitations;
  - a. Record the mass and VOC content of each raw material (including the flexographic materials) consumed during printing each month at the press, and
  - b. Record the mass and VOC content of each cleaning solution consumed in the press area each month.

### **Specific Reporting Requirements:**

1. Furnish a written report of the results of Testing Requirement #1 to the Bowling Green Regional Office and the Frankfort Central Office within 45 days of completion of the fieldwork.

### **Specific Control Equipment Operating Conditions:**

See Section E of this permit.

### **Alternate Operating Scenarios:**

N/A

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Group 4 Requirements****Press 4 and Associated Operations**

**Description:** Press 4 + hand correction of cylinders used on press 4 + parts washing for press 4  
+ cylinder cleaning for press 4

**APPLICABLE REGULATIONS:**

401 KAR 51:017, Prevention of significant deterioration of air quality, is applicable since the press went through a PSD modification in 1996. Due to the modification, requirements of 401 KAR 51:015 and 401 KAR 51:050 were replaced by superior requirements.

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR 60 Subpart QQ, Standards of performance for the graphic arts industry: publication rotogravure printing.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

**Operating Limitations:**

The following limitations are components of Best Available Control Technology (BACT) and result from applicability of 401 KAR 51:017. Compliance with Operating Limitation #2 will also be part of compliance demonstration for 40 CFR 60.432.

1. Raw material used by this group and operation of control equipment shall be such that VOC emitted, calculated using the compliance demonstration method for Emission Limitation #1, during any 12 consecutive month period is  $\leq$  198 tons (demonstrated monthly).
2. Operation of control equipment shall be such that VOC control efficiency, determined using the compliance demonstration method for Emission Limitation 2, for this group is at least 96.04%, by weight, each month.
3. See Press 4 Operating Limitation #1.
4. See Carbon Adsorption System Operating Limitation #1.

The following limitations are part of compliance demonstration for applicable provisions of 40 CFR 63 Subpart KK.

5. Raw material used by this group and operation of control equipment shall be such that source wide VOC (and organic HAP) control efficiency, calculated using the compliance demonstration method for Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements, for the presses and associated activities is at least 92%, by weight, each month.
6. See Section D Operating Limitations of the Source Wide Press and Adsorber Limits and Requirements.



**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Limitations:**

Limitations #1 and #2 are components of BACT. Compliance with Emission Limitation #2 will also satisfy requirements resulting from applicability of 40 CFR 60.432.

1. For each 12 consecutive month period, VOC emissions from this group shall not exceed 198 tons as demonstrated on a monthly basis.

**Compliance Demonstration Method:**

Compliance demonstration is realistically possible only if this group demonstrates compliance with Emission Limitation #2 each month. Assuming compliance with Emission Limitation #2, demonstrate compliance monthly through record keeping data from the appropriate 12 consecutive months and utilization of the following equations.

$$\text{VOC emissions from this group} = 0.0396 \times (C_{p4} + C_{c4}) + 0.0396 \times \frac{C_{p4}}{C_{p1} + C_{p2} + C_{p3} + C_{p4} + C_{p5} + C_{p6}} \times (C_w + C_h + C_y)$$

Where,

$C_{p4} = S$  (Mass of each raw material, including the flexographic materials, consumed during operation of press 4 x VOC % (by weight) of the raw material)

$C_{c4} = S$  (Mass of each cleaning solution consumed during cleaning in the area of press 4 x VOC % (by weight) of the cleaning solution)

Other symbols are described beyond their definition at the respective other groups. If data yields  $\leq$  198 tons, compliance is demonstrated.

2. At least 96.04%, by weight, of the net VOC used in association with operation of the press during each month shall be recovered during the month.

**Compliance Demonstration Method:**

Compliance shall be performed through monthly source wide liquid-liquid material balances. If the required source wide recovery is achieved, then this group is assumed to be in compliance with Emission Limitation #2. See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for details.

3. In accordance with 40 CFR 63.824(b), at least 92%, by weight, of the net HAP used in association with operation of all presses at the source during each month shall be recovered during the month.

**Compliance Demonstration Method:**

See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for compliance demonstration.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Testing Requirements:**

See Section D Testing Requirements of the Source Wide Press and Adsorber Limits and Requirements.

### **Specific Monitoring Requirements:**

1. See Press 4 Specific Monitoring Requirements #1a and #1b.
2. See 6 Hand Correction Stations Specific Monitoring Requirement #1.
3. See Parts Washer Specific Monitoring Requirement #1.
4. See Cylinder Cleaning Specific Monitoring Requirement #1.
5. See Carbon Adsorption System Specific Monitoring Requirement #1.
6. See Specific Monitoring Requirements in the other respective groups.

### **Specific Record Keeping Requirements:**

1. See Press 4 Specific Record Keeping Requirements #1a and #1b.
2. See 6 Hand Correction Stations Specific Record Keeping Requirement #1.
3. See Parts Washer Specific Record Keeping Requirement #1.
4. See Cylinder Cleaning Specific Record Keeping Requirement #1.
5. See Carbon Adsorption System Specific Record Keeping Requirement #1.
6. See Specific Record Keeping Requirements in the other respective groups.
7. See Section D Specific Record Keeping Requirements of the Source Wide Press and Adsorber Limits and Requirements.
8. In accordance with compliance demonstration requirements for BACT limitations, record VOC emissions from this group for each 12 consecutive month period. Calculate the VOC emissions from this group for each 12 consecutive month period using the above equations in the Compliance Demonstration Method for Emission Limitation #1.

### **Specific Reporting Requirements:**

1. See Section D Specific Reporting Requirements of the Source Wide Press and Adsorber Limits and Requirements.
2. In accordance with compliance demonstration requirements for BACT limitations, report semiannually the calculated VOC emissions from this group for each 12 consecutive month period in the semiannual period.

### **Specific Control Equipment Operating Conditions:**

See Section E of this permit.

### **Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP54            Drum Proofer**

**Description:** Single station rotogravure proof press.

The press is controlled by a carbon adsorption system and is not within a permanent total enclosure.

Overall control efficiency is demonstrated through monthly liquid-liquid material balances.

Construction commenced:     April 1992.

### **APPLICABLE REGULATIONS:**

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

The following limitations are part of compliance demonstration for applicable provisions of 40 CFR 63 Subpart KK.

1. Raw material used by this unit and operation of control equipment shall be such that source wide VOC (and organic HAP) control efficiency, calculated using the compliance demonstration method for Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements, for the presses and associated activities is at least 92%, by weight, each month.
2. See Carbon Adsorption System Operating Limitation #1.
3. See Section D Operating Limitations of the Source Wide Press and Adsorber Limits and Requirements.

### **Emission Limitations:**

1. In accordance with 40 CFR 63.824(b), at least 92%, by weight, of the net HAP used in association with operation of all presses (including proof presses) at the source during each month shall be recovered during the month.

### **Compliance Demonstration Method:**

See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for compliance demonstration.

### **Testing Requirements:**

See Section D Testing Requirements of the Source Wide Press and Adsorber Limits and Requirements.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(A);
  - a. Measure the mass of each raw material consumed during printing each month at the unit, and
  - b. Measure the mass of cleaning solution consumed in the area of the unit each month.
2. See Carbon Adsorption System Specific Monitoring Requirement #1.

### **Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1);
  - a. Record the mass and VOC content of each raw material consumed during operation of the unit each month, and
  - b. Record the mass and VOC content of each cleaning solution consumed in the area of the unit each month.
2. See Carbon Adsorption System Specific Record Keeping Requirement #1.
3. See Section D Specific Record Keeping Requirements of the Source Wide Press and Adsorber Limits and Requirements.

### **Specific Reporting Requirements:**

See Section D Specific Reporting Requirements of the Source Wide Press and Adsorber Limits and Requirements.

### **Specific Control Equipment Operating Conditions:**

See Section E of this permit.

### **Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP39            Press 5**

**Description:** Albert Frankenthal model TR8B publication rotogravure printing press - 125" wide with 8 printing units.

The press is controlled a carbon adsorption system and is within a permanent total enclosure.

Overall control efficiency is demonstrated through monthly liquid-liquid material balances.

Construction commenced:        August 1994.

### **APPLICABLE REGULATIONS:**

401 KAR 51:017, Prevention of significant deterioration of air quality, is applicable.

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR 60 Subpart QQ, Standards of performance for the graphic arts industry: publication rotogravure printing.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

1. As part of BACT applicability resulting from applicability of 401 KAR 51:017, the press shall be operated within a structure that is demonstrated to be a permanent total enclosure as described in Method 204 of 40 CFR 51 Appendix M.
2. See Group 5 Requirements for additional operating limitations.

### **Emission Limitations:**

See Group 5 Requirements.

### **Testing Requirements:**

1. To demonstrate compliance with Operating Limitation #1, testing described in Method 204 of 40 CFR 51 Appendix M shall be performed by December 21, 2002 to demonstrate that the press is within a permanent total enclosure.
2. See Group 5 Requirements for additional testing requirements.

### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(A), 40 CFR 60.434(a), and compliance demonstration requirements for BACT limitations;
  - a. Measure the mass of each raw material consumed during printing each month at the press, and
  - b. Measure the mass of cleaning solution consumed in the press area each month.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1), 40 CFR 60.434(a), and compliance demonstration requirements for BACT limitations;
  - a. Record the mass and VOC content of each raw material consumed during printing each month at the press, and
  - b. Record the mass and VOC content of each cleaning solution consumed in the press area each month.

**Specific Reporting Requirements:**

1. Furnish a written report of the results of Testing Requirement #1 to the Bowling Green Regional Office and the Frankfort Central Office within 45 days of completion of the fieldwork.

**Specific Control Equipment Operating Conditions:**

See Section E of this permit.

**Alternate Operating Scenarios:**

N/A

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Group 5 Requirements****Press 5 and Associated Operations**

**Description:** Press 5 + hand correction of cylinders used on press 5 + parts washing for press 5 + cylinder cleaning for press 5

**APPLICABLE REGULATIONS:**

401 KAR 51:017, Prevention of significant deterioration of air quality, is applicable.

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR 60 Subpart QQ, Standards of performance for the graphic arts industry: publication rotogravure printing.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

**Operating Limitations :**

The following limitations are components of Best Available Control Technology (BACT) and result from applicability of 401 KAR 51:017. Compliance with Operating Limitation #2 will also be part of compliance demonstration for 40 CFR 60.432.

1. Raw material used by this group and operation of control equipment shall be such that VOC emitted, calculated using the compliance demonstration method for Emission Limitation #1, during any 12 consecutive month period is  $\leq$  247 tons (demonstrated monthly).
2. Operation of control equipment shall be such that VOC control efficiency, determined using the compliance demonstration method for Emission Limitation 2, for this group is at least 95.06%, by weight, each month.
3. See Press 5 Operating Limitation #1.
4. See Carbon Adsorption System Operating Limitation #1.

The following limitations are part of compliance demonstration for applicable provisions of 40 CFR 63 Subpart KK.

5. Raw material used by this group and operation of control equipment shall be such that source wide VOC (and organic HAP) control efficiency, calculated using the compliance demonstration method for Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements, for the presses and associated activities is at least 92%, by weight, each month.
6. See Section D Operating Limitations of the Source Wide Press and Adsorber Limits and Requirements.

**Emission Limitations :**

Limitations #1 and #2 are components of BACT. Compliance with Emission Limitation #2 will also satisfy requirements resulting from applicability of 40 CFR 60.432.

1. For each 12 consecutive month period, VOC emissions from this group shall not exceed 247 tons as demonstrated on a monthly basis.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Emission Limitations (Continued):****Compliance Demonstration Method:**

Compliance demonstration is realistically possible only if this group demonstrates compliance with Emission Limitation #2 each month. Assuming compliance with Emission Limitation #2, demonstrate compliance monthly through record keeping data from the appropriate 12 consecutive months and utilization of the following equations.

$$\text{VOC emissions from this group} = 0.0494 \times (C_{p5} + C_{c5}) + 0.0494 \times \frac{C_{p5}}{C_{p1} + C_{p2} + C_{p3} + C_{p4} + C_{p5} + C_{p6}} \times (C_w + C_h + C_y)$$

Where,

$$C_{p5} = S \text{ (Mass of each raw material consumed during operation of press 5} \\ \times \text{VOC \% (by weight) of the raw material)}$$

$$C_{c5} = S \text{ (Mass of each cleaning solution consumed during cleaning in the area of press 5} \\ \times \text{VOC \% (by weight) of the cleaning solution)}$$

Other symbols are described beyond their definition at the respective other groups. If data yields  $\leq 247$  tons, compliance is demonstrated.

2. At least 95.06%, by weight, of the net VOC used in association with operation of the press during each month shall be recovered during the month.

**Compliance Demonstration Method:**

Compliance shall be performed through monthly source wide liquid-liquid material balances. If the required source wide recovery is achieved, then this group is assumed to be in compliance with Emission Limitation #2. See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for details.

3. In accordance with 40 CFR 63.824(b), at least 92%, by weight, of the net HAP used in association with operation of all presses at the source during each month shall be recovered during the month.

**Compliance Demonstration Method:**

See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for compliance demonstration.

**Testing Requirements:**

See Section D Testing Requirements of the Source Wide Press and Adsorber Limits and Requirements.



## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Specific Monitoring Requirements:**

1. See Press 5 Specific Monitoring Requirements #1a and #1b.
2. See 6 Hand Correction Stations Specific Monitoring Requirement #1.
3. See Parts Washer Specific Monitoring Requirement #1.
4. See Cylinder Cleaning Specific Monitoring Requirement #1.
5. See Carbon Adsorption System Specific Monitoring Requirement #1.
6. See Specific Monitoring Requirements in the other respective groups.

### **Specific Record Keeping Requirements:**

1. See Press 5 Specific Record Keeping Requirements #1a and #1b.
2. See 6 Hand Correction Stations Specific Record Keeping Requirement #1.
3. See Parts Washer Specific Record Keeping Requirement #1.
4. See Cylinder Cleaning Specific Record Keeping Requirement #1.
5. See Carbon Adsorption System Specific Record Keeping Requirement #1.
6. See Specific Record Keeping Requirements in the other respective groups.
7. See Section D Specific Record Keeping Requirements of the Source Wide Press and Adsorber Limits and Requirements.
8. In accordance with compliance demonstration requirements for BACT limitations, record VOC emissions from this group for each 12 consecutive month period. Calculate the VOC emissions from this group for each 12 consecutive month period using the above equations in the Compliance Demonstration Method for Emission Limitation #1.

### **Specific Reporting Requirements:**

1. See Section D Specific Reporting Requirements of the Source Wide Press and Adsorber Limits and Requirements.
2. In accordance with compliance demonstration requirements for BACT limitations, report semiannually the calculated VOC emissions from this group for each 12 consecutive month period in the semiannual period.

### **Specific Control Equipment Operating Conditions:**

See Section E of this permit.

### **Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP43            Press 6**

**Description:** Albert Frankenthal model TR7B publication rotogravure printing press - 121" wide with 8 printing units.

The press is controlled by a carbon adsorption system and is within a permanent total enclosure.

Overall control efficiency is demonstrated through monthly liquid-liquid material balances.

Construction commenced:        projected for June 2002.

### **APPLICABLE REGULATIONS:**

401 KAR 51:017, Prevention of significant deterioration of air quality, is applicable.

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR 60 Subpart QQ, Standards of performance for the graphic arts industry: publication rotogravure printing.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

40 CFR 64, Compliance assurance monitoring, is applicable.

### **Operating Limitations:**

1. As part of BACT applicability resulting from applicability of 401 KAR 51:017, the press shall be operated within a structure that is initially demonstrated to be a permanent total enclosure as described in Method 204 of 40 CFR 51 Appendix M.
2. See Group 6 Requirements for additional operating limitations.

### **Emission Limitations:**

See Group 6 Requirements.

### **Testing Requirements:**

1. To demonstrate compliance with Operating Limitation #1, testing described in Method 204 of 40 CFR 51 Appendix M shall be performed within the time period described in Section G(d)5 to demonstrate that the press is initially operating within a permanent total enclosure.
2. See Group 6 Requirements for additional testing requirements.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(A), 40 CFR 60.434(a), 40 CFR 64, and compliance demonstration requirements for BACT limitations;
  - a. Measure the mass of each raw material consumed during printing each month at the press, and
  - b. Measure the mass of cleaning solution consumed in the press area each month.

### **Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1), 40 CFR 60.434(a), 40 CFR 64, and compliance demonstration requirements for BACT limitations;
  - a. Record the mass and VOC content of each raw material consumed during printing each month at the press, and
  - b. Record the mass and VOC content of each cleaning solution consumed in the press area each month.
2. As part of compliance demonstration for BACT requirements, record all relevant data collected during performance of Testing Requirement #1.

### **Specific Reporting Requirements:**

1. As part of compliance demonstration for BACT requirements, report all relevant data collected and results obtained from performance of Testing Requirement #1 to the Bowling Green Regional Office and the Frankfort Central Office within 45 days of completion of fieldwork.

### **Specific Control Equipment Operating Conditions:**

See Section E of this permit.

### **Alternate Operating Scenarios:**

N/A

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Group 6 Requirements

### Press 6 and Associated Operations

**Description:** Press 6 + hand correction of cylinders used on press 6 + parts washing for press 6 + cylinder cleaning for press 6

### **APPLICABLE REGULATIONS:**

401 KAR 51:017, Prevention of significant deterioration of air quality, is applicable.

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR 60 Subpart QQ, Standards of performance for the graphic arts industry: publication rotogravure printing.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

40 CFR 64, Compliance assurance monitoring, is applicable.

### **Operating Limitations:**

The following limitations are components of Best Available Control Technology (BACT) and result from applicability of 401 KAR 51:017. Compliance with Operating Limitation #2 will also be part of compliance demonstration for 40 CFR 60.432.

1. Raw material used by this group and operation of control equipment shall be such that VOC emitted, calculated using the compliance demonstration method for Emission Limitation #1, during any 12 consecutive month period is  $\leq 200$  tons (demonstrated monthly).
2. Operation of control equipment shall be such that VOC control efficiency, determined using the compliance demonstration method for Emission Limitation 2, for this group is at least 96%, by weight, each month.
3. See Press 6 Operating Limitation #1.
4. See Carbon Adsorption System Operating Limitation #1.

The following limitations are part of compliance demonstration for applicable provisions of 40 CFR 63 Subpart KK. Section D Operating Limitation #3 for the Source Wide Press and Adsorber Limits and Requirements is also a requirement of 40 CFR 64.

5. Raw material used by this group and operation of control equipment shall be such that source wide VOC (and organic HAP) control efficiency, calculated using the compliance demonstration method for Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements, for the presses and associated activities is at least 92%, by weight, each month.
6. See Section D Operating Limitations of the Source Wide Press and Adsorber Limits and Requirements.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Emission Limitations:

The following limitations are components of BACT. Compliance with Emission Limitation #2 will also satisfy requirements resulting from applicability of 40 CFR 60.432.

1. For each 12 consecutive month period, VOC emissions from this group shall not exceed 200 tons as demonstrated on a monthly basis.

#### **Compliance Demonstration Method:**

Compliance demonstration is realistically possible only if this group demonstrates compliance with Emission Limitation #2 each month. Assuming compliance with Emission Limitation #2, demonstrate compliance monthly through record keeping data from the appropriate 12 consecutive months and utilization of the following equations.

$$\text{VOC emissions from this group} = 0.04 \times (C_{p6} + C_{c6}) + 0.04 \times \frac{C_{p6}}{C_{p1} + C_{p2} + C_{p3} + C_{p4} + C_{p5} + C_{p6}} \times (C_w + C_h + C_y)$$

Where,

$$C_{p6} = S \text{ (Mass of each raw material consumed during operation of press 6} \\ \times \text{VOC \% (by weight) of the raw material)}$$

$$C_{c6} = S \text{ (Mass of each cleaning solution consumed during cleaning in the area of press 6} \\ \times \text{VOC \% (by weight) of the cleaning solution)}$$

Other symbols are described beyond their definition at the respective other groups. If data yields  $\leq$  200 tons, compliance is demonstrated.

2. At least 96%, by weight, of the net VOC used in association with operation of the press during each month shall be recovered during the month.

#### **Compliance Demonstration Method:**

Initially, since all presses at the source will be sharing one solvent recovery system, compliance shall be demonstrated using a representative (as agreed upon by the source and the division) month long liquid-liquid material balance performance demonstration at the source prior to initial startup of press 6 and a representative (as agreed upon by the source and the division) month long liquid-liquid material balance performance demonstration at the source that follows initial startup of press 6 (not more than 180 days after the initial startup of press 6). Information collected during the two performance demonstrations will demonstrate initial compliance through substitution into the following equation.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

### Emission Limitations (Continued):

#### **Compliance Demonstration Method (Continued):**

Overall VOC control efficiency realized on press 6 (% , by weight) = 100 x

$$\frac{[R_{\text{post6}} - \text{OVCE} \times (C_{\text{p1 post6}} + C_{\text{p2 post6}} + C_{\text{p3 post6}} + C_{\text{p4 post6}} + C_{\text{p5 post6}} + C_{\text{pp post6}} + C_{\text{dp post6}} + C_{\text{c1 post6}} + C_{\text{c2 post6}} + C_{\text{c3 post6}} + C_{\text{c4 post6}} + C_{\text{c5 post6}} + C_{\text{cp post6}} + C_{\text{cd post6}} + \text{Pro rate for all but press 6} \times C_{\text{w post6}})]}{(C_{\text{p6 post6}} + C_{\text{c6 post6}} + \text{Pro rate for press 6 alone} \times C_{\text{w post6}})}$$

Where,

$$\text{OVCE} = \frac{R_{\text{prior6}}}{(C_{\text{p1 prior6}} + C_{\text{p2 prior6}} + C_{\text{p3 prior6}} + C_{\text{p4 prior6}} + C_{\text{p5 prior6}} + C_{\text{pp prior6}} + C_{\text{dp prior6}} + C_{\text{c1 prior6}} + C_{\text{c2 prior6}} + C_{\text{c3 prior6}} + C_{\text{c4 prior6}} + C_{\text{c5 prior6}} + C_{\text{cp prior6}} + C_{\text{cd prior6}} + C_{\text{w prior6}})}$$

$$\text{Pro rate for all but press 6} = \frac{(C_{\text{p1 post6}} + C_{\text{p2 post6}} + C_{\text{p3 post6}} + C_{\text{p4 post6}} + C_{\text{p5 post6}} + C_{\text{pp post6}} + C_{\text{dp post6}})}{(C_{\text{p1 post6}} + C_{\text{p2 post6}} + C_{\text{p3 post6}} + C_{\text{p4 post6}} + C_{\text{p5 post6}} + C_{\text{p6 post6}} + C_{\text{pp post6}} + C_{\text{dp post6}})}$$

$$\text{Pro rate for press 6 alone} = \frac{(C_{\text{p6 post6}})}{(C_{\text{p1 post6}} + C_{\text{p2 post6}} + C_{\text{p3 post6}} + C_{\text{p4 post6}} + C_{\text{p5 post6}} + C_{\text{p6 post6}} + C_{\text{pp post6}} + C_{\text{dp post6}})}$$

Determination of the representative performance demonstrations shall be based on similarity of VOC consumed on the individual controlled points. The representative performance demonstrations shall be within 6 months of initial startup of press 6 and, given relatively similar pre- and post-press 6 initial startup data of VOC consumption, the data sets that are closest in time shall be utilized. See SYMBOLS UTILIZED IN THE PERMIT near the front of this permit, the respective groups in Section B of this permit, and Section D of this permit for descriptions of variables in the above equation. If the overall VOC control efficiency realized on press 6 is  $\geq 96\%$ , compliance is initially demonstrated.

Subsequently, compliance demonstration shall be performed through monthly source wide liquid-liquid material balances. If the required source wide recovery is achieved, then this group is assumed to be in compliance with Emission Limitation #2. See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements for details.

3. In accordance with 40 CFR 63.824(b), at least 92%, by weight, of the net HAP used in association with operation of all presses at the source during each month shall be recovered during the month.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Emission Limitations (Continued):**

#### **Compliance Demonstration Method:**

See Section D [Emission Limitation #1](#) of the Source Wide Press and Adsorber Limits and Requirements for compliance demonstration.

### **Testing Requirements:**

See Section D [Testing Requirements](#) of the Source Wide Press and Adsorber Limits and Requirements.

### **Specific Monitoring Requirements:**

1. See Press 6 [Specific Monitoring Requirements #1a and #1b](#).
2. See 6 Hand Correction Stations [Specific Monitoring Requirement #1](#).
3. See Parts Washer [Specific Monitoring Requirement #1](#).
4. See Cylinder Cleaning [Specific Monitoring Requirement #1](#).
5. See Carbon Adsorption System [Specific Monitoring Requirement #1](#).
6. See [Specific Monitoring Requirements](#) in the other respective groups.

### **Specific Record Keeping Requirements:**

1. See Press 6 [Specific Record Keeping Requirements #1a, #1b, and #2](#).
2. See 6 Hand Correction Stations [Specific Record Keeping Requirement #1](#).
3. See Parts Washer [Specific Record Keeping Requirement #1](#).
4. See Cylinder Cleaning [Specific Record Keeping Requirement #1](#).
5. See Carbon Adsorption System [Specific Record Keeping Requirement #1](#).
6. See [Specific Record Keeping Requirements](#) in the other respective groups.
7. See Section D [Specific Record Keeping Requirements](#) of the Source Wide Press and Adsorber Limits and Requirements.
8. In accordance with compliance demonstration requirements for BACT limitations, record VOC emissions from this group for each 12 consecutive month period. Calculate the VOC emissions from this group for each 12 consecutive month period using the above equations in the Compliance Demonstration Method for [Emission Limitation #1](#).
9. In accordance with compliance demonstration requirements for BACT limitations, record the initial overall VOC control efficiency realized on press 6 (% , by weight), described in the Compliance Demonstration Method for [Emission Limitation #2](#).

### **Specific Reporting Requirements:**

1. See Section D [Specific Reporting Requirements](#) of the Source Wide Press and Adsorber Limits and Requirements.
2. In accordance with compliance demonstration requirements for BACT limitations, report semiannually the calculated VOC emissions from this group for each 12 consecutive month period in the semiannual period.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Specific Reporting Requirements (Continued):**

3. As part of compliance demonstration for BACT requirements, report the initial overall VOC control efficiency realized on press 6 (% by weight), described in the Compliance Demonstration Method for Emission Limitation #2 to the Bowling Green Regional Office and the Frankfort Central Office within 45 days of completion of fieldwork.

**Specific Control Equipment Operating Conditions:**

See Section E of this permit.

**Alternate Operating Scenarios:**

N/A



**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**EP42**                      **Ink Jet Printing**

**Description:** The printers are used for mailing addresses. The source has 14 Videojet SR-50 printers, and 5 Scitex 5000 printers, and 2 Jet Array printers. In addition, 3 Scitex 5000 printers have projected installations between July 2002 and the end of 2003.

The Scitex 5000 printers utilize water-based inks without any VOCs.

The other printers utilize inks containing VOCs.

Combined estimated throughputs: Methanol based ink - 0.20 gal/hr.

Methanol solvent - 0.296 gal/hr.

MEK based ink - 0.20 gal/hr.

MEK solvent - 0.413 gal/hr.

4 Videojet SR-50 printers were installed in 1996. 4 Videojet SR-50 printers were installed in 2000. 3 Videojet SR-50 printers were installed in 2001. And, 3 Videojet SR-50 printers were installed in 2002 (prior to issuance of this permit).

3 Scitex 5000 printers were installed in 2000. And, 2 Scitex 5000 printers were installed in 2002 (prior to issuance of this permit).

The 2 Jet Array printers were installed in 1998.

**APPLICABLE REGULATIONS:**

401 KAR 50:038, Air emissions fee, is applicable.

**Operating Limitations:** None

**Emission Limitations:** None

**Testing Requirements:** None

### Specific Monitoring Requirements:

1. To correctly determine subject emissions for fee assessment;
  - a. Measure the mass of each raw material consumed during printing each year, and
  - b. Measure the mass of cleaning solution consumed each year.

### **Specific Record Keeping Requirements:**

1. To correctly determine subject emissions for fee assessment;
  - a. Record the mass and VOC content of each raw material consumed during printing each year, and
  - b. Record the mass and VOC content of each cleaning solution consumed each year.

**Specific Reporting Requirements:** None

**Alternate Operating Scenarios: None**

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**EP24 (YI-1, RI-1, BI-1, KI-1)      Yellow, Red, Blue, and Black Ink Storage Tanks**  
**EP28 (VR-1, VR-2)                  Clear and Pigmented Varnish Storage Tank**

**Description:**    Varnish and ink storage tanks for the rotogravure presses.  
                            The capacity of each tank is 8,000 gallons.  
                            Date commenced:      May 1991.

**EP30 (SL-1)                              Clean Solvent Storage Tank**

**Description:**    Clean solvent storage tank for the rotogravure presses.  
                            The capacity of the tank is 6,000 gallons.  
                            Date commenced:      May 1991.

### **APPLICABLE REGULATIONS:**

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

No limitations are applicable. See Emission Limitations.

### **Emission Limitations:**

No limitations are applicable since the emissions from these tanks are indistinguishable from raw material consumption at the presses.

### **Testing Requirements:** None

### **Specific Monitoring Requirements:**

No requirements are applicable. See Emission Limitations.

### **Specific Record Keeping Requirements:**

No requirements are applicable. See Emission Limitations.

### **Specific Reporting Requirements:**

No requirements are applicable. See Emission Limitations.

### **Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP31 (SL-2)**

### **Clean Solvent Storage Tank**

**Description:** Clean solvent storage tank for the rotogravure presses.  
The capacity of the tank is 12,000 gallons.  
Date commenced: May 1991.

### **APPLICABLE REGULATIONS:**

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR Subpart Kb, Standards of performance for volatile organic liquid storage vessels (including petroleum liquid storage vessels) with a capacity greater than or equal to 40 cubic meters for which construction, reconstruction, or modification commenced after July 23, 1984.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

No limitations are applicable. See Emission Limitations.

### **Emission Limitations:**

No limitations are applicable since the emissions from these tanks are indistinguishable from raw material consumption at the presses.

### **Testing Requirements:** None

### **Specific Monitoring Requirements:**

No requirements are applicable. See Emission Limitations.

### **Specific Record Keeping Requirements:**

1. Pursuant to 40 CFR 60.116b(b) retain records showing the dimensions and capacity of the storage tank for the life of the tank.
2. No other requirements are applicable. See Emission Limitations.

### **Specific Reporting Requirements:**

No requirements are applicable. See Emission Limitations.

### **Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**EP25 (YI-2, RI-2, BI-2, KI-2)      Yellow, Red, Blue, and Black Ink Storage Tanks**  
**EP29 (VR-3)                              Varnish Storage Tank**

**Description:**    Varnish and ink storage tanks for the rotogravure presses.  
                            The capacity of each tank is 8,000 gallons.  
                            Date commenced:      Projected for mid to late 2002.

**EP32 (DS-1)                              Dirty Solvent Storage Tank**

**Description:**    Dirty solvent storage tank for the parts washer and distillation unit.  
                            The capacity of the tank is 4,000 gallons.  
                            Date commenced:      May 1991.  
                            Additional throughput due to construction:      Projected for mid to late 2002.

### **APPLICABLE REGULATIONS:**

401 KAR 51:017, Prevention of significant deterioration of air quality, is applicable.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

1.      BACT for these tanks has been determined to be no control.
2.      No other limitations are applicable. See Emission Limitations.

### **Emission Limitations:**

1.      BACT for these tanks has been determined to be no control.
2.      No other limitations are applicable since the emissions from these tanks are indistinguishable from raw material consumption at the presses.

**Testing Requirements:** None

### **Specific Monitoring Requirements:**

No requirements are applicable. See Emission Limitations.

### **Specific Record Keeping Requirements:**

No requirements are applicable. See Emission Limitations.

### **Specific Reporting Requirements:**

No requirements are applicable. See Emission Limitations.

**Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP33 (SL-3)**

### **Clean Solvent Storage Tank**

**Description:** Clean solvent storage tank for the rotogravure presses.  
The capacity of the tank is 12,000 gallons.  
Date commenced: Projected for mid to late 2002.

### **APPLICABLE REGULATIONS:**

401 KAR 51:017, Prevention of significant deterioration of air quality, is applicable.

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR Subpart Kb, Standards of performance for volatile organic liquid storage vessels (including petroleum liquid storage vessels) with a capacity greater than or equal to 40 cubic meters for which construction, reconstruction, or modification commenced after July 23, 1984.

401 KAR 63:002, 40 CFR Part 63 national emission standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63 Subpart KK, National emission standards for the printing and publishing industry.

### **Operating Limitations:**

1. BACT for this tank has been determined to be no control.
2. No other limitations are applicable. See Emission Limitations.

### **Emission Limitations:**

1. BACT for this tank has been determined to be no control.
2. No other limitations are applicable since the emissions from these tanks are indistinguishable from raw material consumption at the presses.

### **Testing Requirements:** None

### **Specific Monitoring Requirements:**

No requirements are applicable. See Emission Limitations.

### **Specific Record Keeping Requirements:**

1. Pursuant to 40 CFR 60.116b(b) retain records showing the dimensions and capacity of the storage tank for the life of the tank.
2. No other requirements are applicable. See Emission Limitations.

### **Specific Reporting Requirements:**

No requirements are applicable. See Emission Limitations.

### **Alternate Operating Scenarios:** None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP11              Fuel Oil Tank #1 and Fuel Oil Tank #2**

**Description:** Each tank is for #2 fuel oil storage.  
The capacity of each tank is 30,000 gallons.  
Construction commenced:        1992.

#### **APPLICABLE REGULATIONS:**

401 KAR 60:005, 40 CFR Part 60 standards of performance for new stationary sources, is applicable due to incorporation by reference of 40 CFR Subpart Kb, Standards of performance for volatile organic liquid storage vessels (including petroleum liquid storage vessels) with a capacity greater than or equal to 40 cubic meters for which construction, reconstruction, or modification commenced after July 23, 1984.

#### **Operating Limitations:**

N/A

#### **Emission Limitations:**

N/A

#### **Testing Requirements:**

N/A

#### **Specific Monitoring Requirements:**

N/A

#### **Specific Record Keeping Requirements:**

1. Pursuant to 40 CFR 60.116b(b) retain records showing the dimensions and capacity of each storage tank for the life of the tank.

#### **Specific Reporting Requirements:**

N/A

#### **Alternate Operating Scenarios:**

N/A

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **EP13 100" Chromium Electroplating Line - Chrome Plate Tank**

### **EP16 125" Chromium Electroplating Line - Chrome Plate Tank**

**Description:** Both lines are chromium electroplating tanks with mist eliminators for plating rotogravure cylinders.

Both lines utilize composite mesh-pad control systems installed in 1997 with an estimated efficiency of 99%.

100" line construction commenced: May 1985.

125" line construction commenced: March 1992.

### **APPLICABLE REGULATIONS:**

401 KAR 59:010, New process operations, is applicable to each affected facility commenced on or after July 2, 1975.

401 KAR 63:002, 40 CFR Part 63 national emissions standards for hazardous air pollutants, is applicable due to incorporation by reference of 40 CFR 63, Subpart N, National emission standards for chromium emissions from hard and decorative chromium electroplating and chromium anodizing tanks.

### **Operating Limitations:**

The following limits shall also apply as part of compliance demonstration for 401 KAR 59:010 and Emission Limitations #1 and #2.

1. In accordance with 40 CFR 63.342(f)(1)(i), the tanks, control devices, and monitoring equipment shall be operated and maintained consistent with the Section E General Requirement and the operation and maintenance plan described in Operating Limitation #3 (including period of startup, shutdown, and malfunction).
2. The composite mesh-pad control systems shall be operated at all times that the tanks are in operation. Pressure drop across the control systems shall be between 2.3" of H<sub>2</sub>O and 4.3" of H<sub>2</sub>O in accordance with 40 CFR 63.343(c)(1)(i).
3. In accordance with 40 CFR 63.342(f)(3)(i), the permittee shall develop, implement, retain, and revise as necessary an operation and maintenance (O&M) plan for the tanks, control device, and monitoring equipment.
  - a. The O&M plan shall specify operation and maintenance criteria for the tanks, control device, and monitoring equipment and include a standardized checklist to document activities.
  - b. The procedures developed for and contained in the O&M plan shall be complied with and are incorporated as an enforceable part of this permit by reference.
  - c. If the plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the O&M plan shall be revised within 45 days after the event as specified in 40 CFR 63.342(f)(3)(ii).
  - d. If the plan does not address a malfunction event that occurs, the O&M plan may require revision in accordance with 40 CFR 63.342(f)(2)(ii)(A).

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Operating Limitations (Continued):**

3.
  - e. If the plan does not provide for operation during a malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards, the O&M plan may require revision in accordance with 40 CFR 63.342(f)(2)(ii)(B).
  - f. If the plan does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable, the O&M plan may require revision in accordance with 40 CFR 63.342(f)(2)(ii)(C).
  - g. In accordance with 40 CFR 63.342(f)(3)(i)(B), the O&M plan shall include
    - i. Performance of washdown on the composite mesh-pads in accordance with manufacturer recommendations,
    - ii. Quarterly visual inspections of the ductwork from the tanks to the control devices to ensure there are no leaks,
    - iii. Quarterly visual inspections of the back portion of the mesh pad closest to the fan to ensure there is no breakthrough of chromic acid mist,
    - iv. Quarterly visual inspections to ensure there is proper drainage, no chronic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the control device.
  - h. In accordance with 40 CFR 63.342(f)(3)(i)(B) and (C), the O&M plan shall include
    - i. Verification of monitoring device operational status through execution of manufacturer's written recommendations for installation and operation,
    - ii. Initial zeroing of the magnehelic gauge(s),
    - iii. Preventative maintenance for the monitoring device (including any spare parts kept in inventory),
    - iv. Data recording, calculations, and reporting,
    - v. Accuracy audit procedures, and
    - vi. Corrective actions when there is a monitoring device malfunction.
  - i. In accordance with 40 CFR 63.342(f)(3)(i)(D), the O&M plan shall include procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.
  - j. In accordance with 40 CFR 63.342(f)(3)(i)(E), the O&M plan shall include systematic procedures for identifying process and control equipment malfunctions.
4. In accordance with 40 CFR 63.342(f)(1)(ii), malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the O&M plan.
5. In accordance with 40 CFR 63.344(d)(5), pressure drop across the composite mesh-pad control systems shall be measured at locations described by 40 CFR 63.344(d)(5)(i) and (ii) by a magnehelic gauge with pressure taps constructed of either polyethylene, polybutylene, or other nonreactive materials. Nonreactive plastic tubing shall be used to connect the pressure taps to the magnehelic gauge.



## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Emission Limitations:**

1. 401 KAR 59:010 Section 3(1) limits visible emissions from the electroplating to less than 20% opacity.
2. 401 KAR 59:010 Section 3(2) limits total particulate matter emissions from the electroplating to a maximum of 2.34 lbs/hr.

### **Compliance Demonstration Method:**

Compliance with Operating Limitations #1 through #4 may be used to demonstrate compliance unless the Cabinet deems testing (in accordance with 40 CFR 60 Appendix A, Method 9 or 5) necessary.

3. In accordance with 40 CFR 63.342(c)(1)(i), (except during malfunction) total chromium concentration in the exhaust gas stream discharged to the atmosphere shall not exceed 0.015 milligrams per dry standard cubic meter (mg/dscm) of ventilation air (6.6E-06 grains per dry standard cubic foot).

### **Compliance Demonstration Method:**

Compliance is demonstrated based on the initial performance test and subsequent monitoring.

### **Testing Requirements:**

Since the tanks have already demonstrated emissions below the standard in Emission Limitation #3, there are no additional testing requirements except testing shall be conducted at such times required by the Cabinet in accordance with Regulations 401 KAR 50:045 Section 4.

### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.343(c)(1)(ii), monitor the pressure drop across the composite mesh-pad system once each day that either tank is operating.

### **Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.343(c)(1)(ii) and 40 CFR 63.346(b)(8), record the pressure drop across the composite mesh-pad system when monitored and include the date and time of the monitoring.
2. As required in 40 CFR 63.342(f)(3)(v), the procedures of the O&M plan shall be written and kept on record for the life of the affected source or until the affected source is no longer subject to control requirements of 40 CFR 63 Subpart N. Upon request, the written procedures shall be made available for inspection by the division or authorized representatives. In addition, if the O&M plan is revised, previous (i.e., superseded) versions of the plan shall also be kept on record for a period of 5 years after each revision.
3. As required in 40 CFR 63.342(f)(3)(iv), actions taken during periods of malfunction that are different than the procedures specified in the O&M plan shall be recorded and include date and time.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****Specific Record Keeping Requirements (Continued):**

4. In accordance with 40 CFR 63.346(b)(1), record observations made during inspections described in the O&M plan of the composite-mesh pad system and the magnehelic gauge. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection.
5. In accordance with 40 CFR 63.346(b)(2), record all maintenance performed on the plating tanks, the composite-mesh pad system, and the magnehelic gauge.
6. In accordance with 40 CFR 63.346(b)(3), record the occurrence, duration, and cause (if known) of each malfunction of the plating tanks, the composite-mesh pad system, and the magnehelic gauge.
7. In accordance with 40 CFR 63.346(b)(4), record actions taken during periods of malfunction when such actions are inconsistent with the O&M plan.
8. In accordance with 40 CFR 63.346(b)(5), record information necessary to demonstrate consistency with the provisions of the O&M plan. The record may take the form of checklists.
9. In accordance with 40 CFR 63.346(b)(6), record raw data and the results for all performance tests.
10. In accordance with 40 CFR 63.346(b)(7), record raw data for plating activities and pressure drop across the control device during all performance tests.
11. In accordance with 40 CFR 63.346(b)(9) and (10), record the specific identification (i.e. the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data, that occurs during malfunction of the plating tank, the composite-mesh pad system, or the magnehelic gauge and that occurs at period other than malfunction.
12. In accordance with 40 CFR 63.346(b)(11), record the total process operating time of the plating tanks during the reporting period.

**Specific Reporting Requirements:**

1. As required by 40 CFR 63.342(f)(3)(iv), actions taken during malfunctions that are not consistent with the procedures in the O&M plan shall be reported by telephone call or FAX transmission to the division within 2 working days of commencing the action inconsistent with the plan and a letter shall follow within 7 working days after the conclusion of the action. If alternate reporting arrangements are made in advance with the division, reporting of inconsistent malfunction actions may differ from the above described reporting.
2. In accordance with 40 CFR 63.347(g), the permittee shall submit semiannual summary reports to the Division's Bowling Green Regional Office to document the ongoing compliance status of the plating tanks. If data shows an exceedance of Emission Limitation #3, start submitting the summary report quarterly and continue quarterly reporting until the division approves semiannual summary reporting in accordance with the provision of 40 CFR 63.347(g)(1) and (2). The summary report shall contain:

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Specific Reporting Requirements:**

- a. The company name and address,
- b. An identification of the operating parameter that is monitored for compliance determination,
- c. The relevant emission limitation for the plating tanks and the range of pressure drop that corresponds to compliance with the emission limitation,
- d. The beginning and ending dates of the reporting period,
- e. A description of the type of process performed,
- f. The total operating time of the plating tanks during the reporting period,
- g. A summary of actual pressure drop measured during the reporting period (including the total duration of excess emissions during the reporting period as indicated by actual pressure drop measurements, the total duration of excess emissions expressed as a percent of the total operating time of the plating tanks during the reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes),
- h. A certification by a responsible official, as defined in 40 CFR 63.2, that the work practice standards in the O&M plan were followed,
- i. If the O&M plan was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred, and a copy of the reports required by Specific Reporting Requirement #1,
- j. A description of any changes in monitoring, processes, or controls since the last reporting period,
- k. The name, title, and signature of the responsible official who is certifying the accuracy of the report, and
- l. The date of the report.

### **Specific Control Equipment Operating Conditions:**

See Operating Limitation #1, #2, #3, and #4 for this emission point.

**Alternate Operating Scenarios:** None

**SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020 Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

|     | <u>Description</u>   | <u>Generally Applicable Regulation</u>             |
|-----|--|--|
| 1.  | Two Double Cell Cooling Towers<br>Manufactured by Baltimore Aircool<br>Rated at 1,410 gal/min and<br>Constructed in June 1988  | 401 KAR 63:010                                     |
| 2.  | 100" Copper Electroplating Line<br>Cylinder Copper Plate Tank<br>Acidic Dechrome/Degrease Tank<br>Basic Dechrome/Degrease Tank | 401 KAR 59:010<br>401 KAR 59:010<br>401 KAR 59:010 |
| 3.  | 125" Copper Electroplating Line<br>Cylinder Copper Plate Tank<br>Acidic Dechrome/Degrease Tank<br>Basic Dechrome/Degrease Tank | 401 KAR 59:010<br>401 KAR 59:010<br>401 KAR 59:010 |
| 4.  | Balemaster E940 Baler #1<br>Controlled by a process cyclone<br>Constructed in 1979   | 401 KAR 59:010                                     |
| 5.  | Balemaster E1290 Baler #2<br>Controlled by a process cyclone<br>Constructed in October 1989                                    | 401 KAR 59:010                                     |
| 6.  | Selco #5140108A Baler #3<br>Controlled by a process cyclone<br>Constructed in June 1991  | 401 KAR 59:010                                     |
| 7.  | Hot melt glue #1   | None   |
| 8.  | Hot melt glue #2   | None   |
| 9.  | Boiler Feedwater Deaerator<br>Rated at 52 gal/min and<br>Constructed in June 1988  | None   |
| 10. | Wastewater Treatment   | None   |

**SECTION C - INSIGNIFICANT ACTIVITIES - (CONTINUED)**

|     | <u>Description</u>   | <u>Generally Applicable Regulation</u> |
|-----|--|--|
| 11. | Wastewater Air Stripper<br>Constructed in March 1997   | None                                   |
| 12. | Imaging Plant  |  |
|     | A. Kodak 710 Processor   | 401 KAR 59:010                         |
|     | B. Pako Layout Processor   | 401 KAR 59:010                         |
|     | C. Boiler - 0.675 MM Btu/hr  | None                                   |
|     | D. Maintenance/cleaning  | None                                   |
|     | E. Fuji Processor #1   | None                                   |
|     | F. Fuji Processor #2   | None                                   |
|     | G. Glunz and Jensen  | 401 KAR 59:010                         |
|     | H. Heidleberg Scan s-3400  | 401 KAR 59:010                         |
| 13. | 1.365 MM Btu/hr Diesel Fired<br>Emergency Generator #1<br>Limited to 500 hours of operation per year | None                                   |
| 14. | 1.365 MM Btu/hr Diesel Fired<br>Emergency Generator #2<br>Limited to 500 hours of operation per year | None                                   |
| 15. | 1.295 MM Btu/hr Diesel Fired<br>Fire Pump  | None                                   |
| 16. | Emergency Generator Fuel Oil Tank<br>With capacity of 500 gallons                                    | None                                   |
| 17. | Fire Pump Fuel Oil Tank<br>With capacity of 200 gallons  | None                                   |

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

### Source Wide Press and Adsorber Limits and Requirements

**Description:** Press 1 + Press 2 + Press 3 + Press 4 + Press 5 + Press 6 + The Proof Press + The Drum Proofer + The Parts Washer + The Carbon Adsorption System.

### **Operating Limitations:**

The following limitations apply as a result of 40 CFR 63 Subpart A, general provisions, applicability referenced in 40 CFR 63.823.

1. In accordance with 40 CFR 63.6(e)(3), the permittee shall develop, implement, retain, and revise as necessary a startup, shutdown, and malfunction (SSM) plan for the presses and the control device.
  - a. The procedures developed for and contained in the SSM plan shall be complied with and are incorporated as an enforceable part of this permit by reference.
  - b. All revisions to this plan shall supersede earlier SSM plans without requiring a permit revision and shall automatically be incorporated as an enforceable part of this permit by reference also.
  - c. If the plan does not address a startup, shutdown, or malfunction event that occurs, the SSM plan may require revision in accordance with 40 CFR 63.6(e)(3)(vii)(A).
  - d. If the plan does not provide for the operation during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards, the SSM plan may require revision in accordance with 40 CFR 63.6(e)(3)(vii)(B).
  - e. If the plan does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable, the SSM plan may require revision in accordance with 40 CFR 63.6(e)(3)(vii)(C).
  - f. If the plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the SSM plan shall be revised within 45 days after the event as specified in 40 CFR 63.6(e)(3)(viii).
2. In accordance with 40 CFR 63.6(e)(1)(ii), malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the SSM plan.
3. In accordance with 40 CFR 63.8(d)(2), a monitoring system quality control program, including a site-specific performance evaluation test plan described in 40 CFR 63.8(e), for the monitoring systems shall be developed and implemented. This quality control program shall include a written protocol that describes procedures for:
  - a. Initial and subsequent calibration of the volatile matter recovery monitoring device,
  - b. Determination and adjustment of monitoring device calibration drifts,
  - c. Preventative maintenance for the monitoring device (including any spare parts kept in inventory),
  - d. Data recording, calculations, and reporting,

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

### Operating Limitations (Continued):

3.
    - e. Accuracy audit procedures, and
    - f. Corrective actions when there is a monitoring device malfunction.
- If procedures are also required in the SSM plan, the procedures may be united into the SSM plan to avoid duplication of planning and record keeping efforts.

### Emission Limitations:

The following limitation is a result of the source having one common control system for all presses and associated activities. Utilization of one limit is possible for both organic HAP and VOC requirements since organic HAP may be assumed to be equal to VOC pursuant to 40 CFR 63.827(b)(1)(ii). The limitation describes a combined control efficiency limitation for all presses and associated activities that will be used to demonstrate compliance with the applicable group control efficiency limitations described in Section B of this permit and will demonstrate the control efficiency requirements resulting from applicable BACT, LAER, 40 CFR 60 Subpart QQ, and 40 CFR 63 Subpart KK requirements.

1. Each month, VOC recovery by the source's carbon adsorption system shall meet or exceed the minimum source wide VOC recovery requirement. The following equation shall define the minimum source wide VOC recovery requirement unless the minimum recovery requirement is calculated below 92%. If the minimum recovery requirement is calculated below 92%, 92% shall be the minimum recovery requirement for the month.

Minimum source wide VOC recovery requirement (% , by weight) =  $100 \times$

$$\frac{[0.90 \times (C_{p1} + C_{p2} + C_{p3} + C_{c1} + C_{c2} + C_{c3}) + 0.9604 \times (C_{p4} + C_{c4} + C_w + C_h + C_y) + 0.9506 \times (C_{p5} + C_{c5}) + 0.96 \times (C_{p6} + C_{c6}) + 0.75 \times (C_{pp} + C_{cp})]}{(C_{p1} + C_{p2} + C_{p3} + C_{p4} + C_{p5} + C_{p6} + C_{pp} + C_{c1} + C_{c2} + C_{c3} + C_{c4} + C_{c5} + C_{c6} + C_{cp} + C_w + C_h + C_y)}$$

### **Compliance Demonstration Method:**

Use the above equation and records for the referenced variables to determine the minimum recovery requirement for each month. Compare the actual VOC recovery to the minimum.

$$\text{Actual VOC recovery (\%, by weight)} = \frac{100 \times R}{(C_{p1} + C_{p2} + C_{p3} + C_{p4} + C_{p5} + C_{p6} + C_{pp} + C_{c1} + C_{c2} + C_{c3} + C_{c4} + C_{c5} + C_{c6} + C_{cp} + C_w + C_h + C_y)}$$

Where,

R = the measured volatile matter described in Section E Carbon Adsorption System Specific Monitoring Requirement #1 and the other referenced variables are previously described in this permit.

**SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)****Emission Limitations (Continued):****Compliance Demonstration Method (Continued):**

If the actual VOC recovery for the month evaluated is greater than or equal to the minimum for the month then compliance is demonstrated.

Given the anticipated VOC throughputs at the presses, the minimum recovery requirement has been estimated for a few scenarios. However, these estimates are not exact and are not to be used for compliance demonstration.

If approximately equal VOC consumption is realized at each press (except the proof press), the minimum recovery requirement will be approximately 92.2% prior to operation of press 6 and approximately 92.9% with press 6.

If VOC consumption at presses 1, 2, and 3 is 20% (each) below the average consumption realized at the other presses (except the proof press), the minimum recovery requirement will be approximately 92.5% prior to operation of press 6 and approximately 93.2% with press 6.

If VOC consumption at presses 1, 2, and 3 is 40% (each) below the average consumption realized at the other presses (except the proof press), the minimum recovery requirement will be approximately 92.9% prior to operation of press 6 and approximately 93.6% with press 6.

If VOC consumption at presses 1, 2, and 3 is 60% (each) below the average consumption realized at the other presses (except the proof press), the minimum recovery requirement will be approximately 93.5% prior to operation of press 6 and approximately 94.1% with press 6.

**Testing Requirements:**

1. To demonstrate compliance with requirements of BACT, LAER, 40 CFR 60 Subpart QQ, and 40 CFR 63 Subpart KK, VOC content of raw materials shall be determined using;
  - a. Reference Method 24 in Appendix A of 40 CFR 60,
  - b. Formulation data from the raw material manufacturer, or
  - c. An alternative technique approved by the division and the U.S. EPA.VOC content may be used to demonstrate compliance with 40 CFR 63 Subpart KK in accordance with 40 CFR 63.827(b)(2) if maximum organic HAP content is assumed to be equal to VOC content. In the event of any inconsistency between any of the accepted techniques, Method 24 test results shall govern unless the permittee can satisfactorily demonstrate to the division and the U.S. EPA that other data is more accurate.



**SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)****Specific Record Keeping Requirements:**

1. As required by 40 CFR 63.829(b)(1) and 40 CFR 63.10(b)(2)(x) and (xi), all calibration checks, adjustments, and maintenance performed on the recovery monitoring device shall be recorded and include date and time. Additionally, the nature of the repairs and adjustments shall be recorded as required by 40 CFR 63.829(b)(3) and 40 CFR 63.10(c)(12).
2. As required by 40 CFR 63.829(b)(1) and 40 CFR 63.10(b)(2)(iii), maintenance of the carbon adsorption system shall be recorded and include dates.
3. As part of compliance demonstration for requirements resulting from applicability of BACT, LAER, 40 CFR 60 Subpart QQ, and 40 CFR 63 Subpart KK, record the minimum source wide VOC recovery requirement (% by weight) for each month. Calculate the minimum source wide VOC recovery requirement (% by weight) for each month using the appropriate above equation in the Compliance Demonstration Method for Emission Limitation #1.
4. As part of compliance demonstration for requirements resulting from applicability of BACT, LAER, 40 CFR 60 Subpart QQ, and 40 CFR 63 Subpart KK, record the actual VOC recovery (% by weight) for each month. Calculate the actual VOC recovery (% by weight) for each month using the appropriate above equation in the Compliance Demonstration Method for Emission Limitation #1.
5. As required by 40 CFR 63.829(b)(1) and 40 CFR 63.10(b)(2)(i) and (ii), the occurrence, including date and time, and duration of each process equipment and control equipment startup, shutdown, or malfunction shall be recorded.
6. The occurrence, including date and time, and duration of malfunctions or inoperative periods for the recovery monitoring device shall be recorded as required by 40 CFR 63.10(b)(2)(vi), 40 CFR 63.829(b)(3), and 40 CFR 63.10(c)(5).
7. As required in 40 CFR 63.6(c)(3)(v), the startup, shutdown, and malfunction plan incorporated by reference into this permit shall be written and kept on record after developed. Upon request, the plan shall be made available for inspection by the division or authorized representatives for the life of the affected source or until the affected source is no longer subject to control requirements of 40 CFR 63 Subpart KK. In addition, if the plan is revised, previous (i.e., superseded) versions of the plan shall also be kept on record for a period of 5 years after each revision.
8. As required by 40 CFR 63.829(b)(1), 40 CFR 63.10(b)(2)(iv), and 40 CFR 63.6(e)(3)(iv), actions taken during periods of startup, shutdown, and malfunction that are different than the procedures specified in the SSM plan shall be recorded and include date and time.
9. As required by 40 CFR 63.829(b)(1), 40 CFR 63.10(b)(2)(v), and 40 CFR 63.6(e)(3)(iii), record all information necessary to demonstrate conformance with the SSM.
10. All documentation supporting division or U.S. EPA notifications shall be recorded as required by 40 CFR 63.10(b)(2)(xiv) and 40 CFR 63.829(b)(1).

**SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)****Specific Record Keeping Requirements (Continued):**

11. The nature and cause (if known) of any malfunction shall be recorded as required in 40 CFR 63.829(b)(3) and 40 CFR 63.10(c)(10).
12. All corrective actions taken or preventive measures adopted shall be recorded as required in 40 CFR 63.829(b)(3) and 40 CFR 63.10(c)(11).
13. The combined total process operating time in the reporting period for all presses shall be recorded as required in 40 CFR 63.829(b)(3) and 40 CFR 63.10(c)(13).
14. As required in 40 CFR 63.8(d)(3), the procedures of the monitoring system quality control program shall be written and kept on record for the life of the affected source or until the affected source is no longer subject to control requirements of 40 CFR 63 Subpart KK. Upon request, the written procedures shall be made available for inspection by the division or authorized representatives. In addition, if the performance evaluation plan contained in the monitoring system quality control program is revised, previous (i.e., superseded) versions of the plan shall also be kept on record for a period of 5 years after each revision.
15. In accordance with 40 CFR 63.10(c)(15), actions or procedures utilized to comply with the monitoring system quality control program shall be recorded and include date of execution as required in 40 CFR 63.829(b)(3) and 40 CFR 63.10(c)(14). Duplicate records are not required if records of an action or procedure are otherwise required in this permit.

**Specific Reporting Requirements:**

The following reporting requirements shall be certified by a responsible official, and delivered by electronic media (such as fax or e-mail) or postmarked to the Division's Bowling Green Regional Office and the U.S. EPA Region IV as indicated. Semiannual periods shall conclude at the end of June and December each year and reports shall be submitted prior to July 30<sup>th</sup> and January 30<sup>th</sup>, respectively. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete. Name, title, and signature of the responsible official are required.

1. As required by 40 CFR 63.830(b)(4), 40 CFR 63.7(g)(1), 40 CFR 63.10(d)(2), and the division's policy manual which is incorporated by reference in 401 KAR 50:016 Section 1(1), performance test results shall be submitted within 45 days of fieldwork completion.
2. As required by 40 CFR 63.830(b)(3), and 40 CFR 63.9(h), notification of compliance status for all presses at the source shall be submitted as described in Section F9 of this permit.
3. As required by 40 CFR 63.830(b)(5), 40 CFR 63.6(e)(3)(iii), and 40 CFR 63.10(d)(5), a start-up, shutdown, and malfunction report shall be submitted semiannually and the report shall state whether actions taken during start-ups, shutdowns, and malfunctions were consistent with the procedures in the SSM plan. If any actions taken were not consistent with the procedures in the SSM plan, also report when the actions occurred.

**SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)****Specific Reporting Requirements (Continued):**

4. As required by 40 CFR 63.6(e)(3)(iv) and 40 CFR 63.10(d)(5), actions taken during start-ups, shutdowns, and malfunctions that are not consistent with the procedures in the SSM plan shall be reported by telephone call or FAX transmission to the division within 2 working days of commencing the action inconsistent with the plan and a letter shall follow within 7 working days after the conclusion of the action. If alternate reporting arrangements are made in advance with the division, reporting of inconsistent startup, shutdown, or malfunction actions may be altered in accordance with 40 CFR 63.10(d)(5)(ii).
5. If a malfunction or other event affects the recovery monitoring device and the event is not addressed by the SSM plan, corrective actions taken shall be reported within 24 hours after commencing the actions and a follow-up report shall be required within 2 weeks after commencing the actions in accordance with 40 CFR 63.8(c)(1)(ii).
6. As required by 63.830(b)(6) and 40 CFR 63.10(e)(3)(i), semiannually report the operating condition of the recovery monitoring device, including actions taken and observations made during the period to comply with the monitoring system quality control program.
7. As required as part of compliance demonstration for requirements resulting from applicability of BACT, LAER, 40 CFR 60 Subpart QQ and by 63.830(b)(6) and 40 CFR 63.10(e)(3)(vi), a summary report for all presses at the source for VOC and HAP shall be submitted semiannually and entitled "Summary Report-Gaseous Excess Emission and Continuous Monitoring System Performance". In addition to the above certification requirements, the report shall contain;
  - a. The facility's name and address,
  - b. An identification of the hazardous air pollutants emitted at the source,
  - c. Beginning and ending dates of the reporting period,
  - d. A brief description (identification, for example: press 1, part washer, etc.) of the process units at the source,
  - e. The minimum source wide VOC recovery requirement (% by weight) for each month,
  - f. The monitoring equipment manufacturer and model number,
  - g. The dates of calibration checks in the reporting period,
  - h. The total combined operating time of the process units in the reporting period,
  - i. The actual VOC recovery (% by weight) for each month,
  - j. The duration of excess emissions (Identify period when no excess emissions occur.),
  - k. The percentage of the operating time in the reporting period when excess emissions occurred (including breakdowns for excess emissions due to start-up/shutdown, control equipment problems, process problems, other known causes, and other unknown causes),

## **SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)**

### **Specific Reporting Requirements (Continued):**

7.
  - l. The recovery monitoring device downtime each month (Identify periods when no monitoring downtime was experienced. Measure downtime only when process units are in operation.),
  - m. The percentage of the downtime in the reporting period (including breakdowns for downtime due to malfunctions of the recovery monitoring device, other known causes, and other unknown causes),
  - n. A description of any changes in monitoring, compliance method, the processes, or controls since the last reporting period, and
  - o. The date of the report.

## **SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)**

### **Synthetic Minor Boiler Limits (except for the boiler in the imaging plant)**

#### **Operating Limitations:**

1. To make the below Emission Limitation #1 enforceable as a practical matter, #2 fuel oil used shall be  $\leq 1,014,080$  gallons during each 12 consecutive month period (demonstrated monthly).

#### **Emission Limitation:**

1. To preclude requirements of PSD, SO<sub>2</sub> emissions from each boiler shall be less than or equal to 36.0 tons for any 12 consecutive month period (demonstrated monthly).

#### **Compliance Demonstration Method:**

Compliance with the #2 fuel oil sulfur content limit described in Section B plus compliance with the above Operating Limitation #1 will demonstrate compliance.

#### **Specific Record Keeping Requirements:**

Synthetic minor limitations require the following.

1. Record gallons of #2 fuel oil combusted in each boiler each month.

#### **Specific Reporting Requirements:**

Semiannual reports shall be certified by a responsible official, and delivered or postmarked to the Division's Bowling Green Regional Office by July 30<sup>th</sup> and January 30<sup>th</sup> of each year. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete. Synthetic minor limitations require the following.

1. Semiannually report gallons of #2 fuel oil combusted in each boiler each month in the semiannual period.

## SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

### General Requirement

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

### Carbon Adsorption System

**Description:** The control device is an adsorber utilizing activated charcoal and regenerated by steam. The system controls VOC and volatile HAP emissions from press 1, press 2, press 3, press 4, press 5, press 6, the proof press, the drum proofer, and the parts washer. The system currently includes ducts, fans, piping equipment, pumps, a decant tank, 6 adsorber beds, and a recovery measurement device. Prior to operation of press 6, a second decant tank, two additional adsorber beds, and associated equipment will be added to the system.

Construction commenced: 1979.

Latest modification: projected for July or August 2002.

### **Operating Limitations:**

1. As part of requirements resulting from 40 CFR 64 applicability and to demonstrate control efficiency requirements of BACT, LAER, synthetic minor limitations on the proof press, 40 CFR 60 Subpart QQ, and 40 CFR 63 Subpart KK, liquid-liquid material balances shall utilize recovery measurements from a device that satisfies the provisions of 40 CFR 63.824(b)(1)(i)(D). Accordingly, the device shall:
  - a. Be installed, calibrated, maintained, and operated according to manufacturer's specifications;
  - b. Be initially certified by the manufacturer to be accurate to within  $\pm 2.0\%$ ; and,
  - c. Indicate the cumulative amount of volatile matter recovered by the adsorber system on a monthly basis.

### **Emission Limitations:**

See Section D Emission Limitation #1 of the Source Wide Press and Adsorber Limits and Requirements.

### **Testing Requirements:**

N/A

### **Specific Monitoring Requirements:**

1. In accordance with 40 CFR 63.824(b)(1)(i)(E), 40 CFR 60.434(a), 40 CFR 64, and compliance demonstration requirements for BACT and LAER limitations, measure the mass of volatile matter recovered each month.

## **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS (CONTINUED)**

### **Specific Record Keeping Requirements:**

1. In accordance with 40 CFR 63.829(b)(1), 40 CFR 60.434(a), 40 CFR 64, and compliance demonstration requirements for BACT and LAER limitations, record the mass of volatile matter recovered each month.
2. See Section D Specific Record Keeping Requirements for the Source Wide Press and Adsorber Limits and Requirements.

### **Specific Reporting Requirements:**

N/A to the Carbon Adsorption System alone.

### **Alternate Operating Scenarios:**

N/A

## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS**

1. Pursuant to Section 1b (IV)(1) of the materials incorporated by reference in 401 KAR 52:020 Section 10, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, place (as defined in this permit), and time of sampling or measurements;
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement.
2. Pursuant to Section 1b (IV)(2) of the materials incorporated by reference in 401 KAR 52:020 Section 10, records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality shall be retained by the permittee for a period of five years. In accordance with Section 1a (8) of the materials incorporated by reference in 401 KAR 52:020 Section 10, these records shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality.
3. In accordance with the requirements of Regulation 401 KAR 52:020 Section 3(1)(h) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
  - a. Access and copy any records required by this permit, enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation; and
  - b. Sample or monitor substances or parameters that affect compliance with the permit or any applicable requirements.Reasonable times include all hours of operation, normal office hours, and during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Pursuant to Section 1b V(1) of the material incorporated by reference in 401 KAR 52:020 Section 10, summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. Reports for emission units that are still under construction or emission units that have not commenced operation at the end of the period shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.



## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

6. All monitoring summary reports shall:
  - a. Be certified by a responsible official pursuant to 401 KAR 52:020 Section 23,
  - b. Clearly identify all deviations from permit requirements, and
  - c. Be submitted prior to January 30th and July 30th of each year.
7. In accordance with the provisions of 401KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
8. Pursuant to Section 1b V(3) and (4) of the material incorporated by reference in 401 KAR 52:020 Section 10, the owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.5.
9. Pursuant to 401KAR 52:020, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Regional Office listed on the front of this permit, the Division's Central Files, and the U.S. EPA in accordance with the following requirements:
  - a. Identification of each term or condition of the permit that is the basis of the certification;
  - b. The compliance status regarding each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent; and
  - d. The method used for determining the compliance status for the source, currently and over the reporting period.
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the year covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
  - f. The certification shall be postmarked by January 30th of each year. **Annual compliance certifications should be mailed to the following addresses:**

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING  
REQUIREMENTS (CONTINUED)**

**Division for Air Quality  
Bowling Green Regional Office  
1508 Westen Avenue  
Bowling Green, KY 42104**

**U.S. EPA Region IV  
Air Enforcement Branch  
Atlanta Federal Center  
61 Forsyth St.  
Atlanta, GA 30303-8960**

**Division for Air Quality  
Central Files  
803 Schenkel Lane  
Frankfort, KY 40601**

10. In accordance with Regulation 401 KAR 52:020, Section 22, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee.
11. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

## SECTION G - GENERAL PROVISIONS

### (a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:020 and the Clean Air Act and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit. [Section 1a (3) of the materials incorporated by reference in 401 KAR 52:020 Section 10]
2. Notification by the permittee of a planned change or anticipated noncompliance, or filing of a request for any permit revision, reissuance, or rescission shall not stay any permit condition. [Section 1a (6) of the materials incorporated by reference in 401 KAR 52:020 Section 10]
3. Pursuant to Section 1a (3) of the materials incorporated by reference in 401 KAR 52:020 Section 10, 401 KAR 52:020 Section 7(3), and 401 KAR 50:060 Section 2, this permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020 Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020 Section 12;
  - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish upon request information requested by the division to determine compliance with the permit or to determine if cause exists for modifying, revoking and reissuing, or terminating the permit. [Sections 1a (7) and (8) of the materials incorporated by reference in 401 KAR 52:020 Section 10]

## **SECTION G - GENERAL PROVISIONS (CONTINUED)**

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority. [401 KAR 52:020 Section 7(1)]
6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Section 1a (14) of the materials incorporated by reference in 401 KAR 52:020 Section 10]
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [Section 1a (4) of the materials incorporated by reference in 401 KAR 52:020 Section 10]
8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States. [Section 1a (15)(b) of the materials incorporated by reference in 401 KAR 52:020 Section 10]
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6). [Section 1a (10) of the materials incorporated by reference in 401 KAR 52:020 Section 10]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:020 Section 11(3)(b)]
11. This permit does not convey property rights or exclusive privileges. [Section 1a (9) of the materials incorporated by reference in 401 KAR 52:020 Section 10]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 52:020 Section 11(3)(d)]
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 52:020 Section 11(3)(a)]
15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor pre-construction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

## SECTION G - GENERAL PROVISIONS (CONTINUED)

16. Permit Shield – A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
  - (a) Applicable requirements included and specifically identified in this permit; and
  - (b) Non-applicable requirements expressly identified in this permit.
- (b) Permit Expiration and Reapplication Requirements
  1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 52:020 Section 12]
  2. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the division after the completeness determination has been made on any application, by whatever deadline the division sets. [401 KAR 52:020 Section 8(2)]
- (c) Permit Revisions
  1. Minor permit revision procedures specified in 401 KAR 52:020 Section 14 (3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020 Section 14 (2).
  2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.
- (d) Construction, Start-Up, and Initial Compliance Demonstration Requirements  
**For Press 6 and associated equipment**
  1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

## **SECTION G - GENERAL PROVISIONS (CONTINUED)**

2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the division's Frankfort Central Office, notification of the following:
  - a. The date when construction commenced.
  - b. The date of start-up of the affected facilities listed in this permit.
  - c. The date when the maximum production rate specified in the permit application was achieved.
3. Affected facilities that are not completed in accordance with 401 KAR 52:020 Section 3(2) shall lose the construction and operation authorization granted in this permit. Accordingly:
  - a. Construction shall commence no later than 18 months after the date of issue of this permit;
  - b. Construction shall not begin and discontinue for 18 months or more unless the construction authorized is approved as a phased project;
  - c. Construction shall be completed within 18 months of the scheduled completion date; and
  - d. Each phase of a phased construction project shall commence construction within 18 months of the projected and approved commencement date.Upon a written request, the division may extend these time periods if the source shows good cause.
4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operation of the affected facilities for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055, except as provided in Section I of this permit.
5. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.
6. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance test or performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must be conducted in accordance with General Provision G(d)6 of this permit and the permittee must also furnish a written report of the results of such performance tests to the division's Frankfort Central Office.

## SECTION G - GENERAL PROVISIONS (CONTINUED)

7. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the division shall be notified of the actual test date at least ten (10) days prior to the test.
- (e) Acid Rain Program Requirements
1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- (f) Emergency Provisions
1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
    - a. An emergency occurred and the permittee can identify the cause of the emergency;
    - b. The permitted facility was at the time being properly operated;
    - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
    - d. The permittee notified the division as promptly as possible; and,
    - e. Pursuant to 401 KAR 52:020 and 401 KAR 50:055, the permittee submitted written notice of the emergency to the division not later than two (2) working days after the time when emission limitations were exceeded due to the emergency and any other time that the director of the division requests. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.
  2. Notification of the division does not relieve the source of any other local, state or federal notification requirements.
  3. Emergency conditions listed in General Provision G(f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement. [401 KAR 52:020 Section 24(3)]
  4. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:020 Section 24(2)]



## SECTION G - GENERAL PROVISIONS (CONTINUED)

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

**RMP Reporting Center**  
**P.O. Box 3346**  
**Merrifield, VA, 22116-3346**

2. If requested, the permittee shall submit additional relevant information to the division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
  - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.



## SECTION H - ALTERNATE OPERATING SCENARIOS

N/A

**SECTION I - COMPLIANCE SCHEDULE**

N/A